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THE AMERICAN MUSEUM
OF
NATURAL HISTORY



OÖLOGIST.

Monthly.

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Vol. VI,

ALBION, N. Y., JAN., 1889.

No. 1

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

IN EXCHANGE for the best offer of eggs in sets, a 22 cal. Ballard rifle; also purely-bred poultry of the following varieties, in tricos: White and Brown Leghorns. White and Partridge Cochins. White Wyandottes. White Plymouth Rocks and Silver-pencilled Hamburgs. W. J. SIMPSON, 91 Park Row, N. Y. City. 12m2

NOTICE—A 22 cal. rifle, nearly new, for best offer of eggs in sets, or works on ornithology. F. N. McCORMACK, Leighton, Ala.

Will exchange any of the "Bargain Lots" listed in this Oölogist for desirable specimens or Books on Natural History. What offers? Frank H. LATTIN, Albion, N. Y.

WANTED—To exchange birds' eggs of Utah and other localities, for a photograph outfit. Must be in good repair. Write first. Address Box 665, Ogden, Utah.

I HAVE first-class eggs to exchange. DAVE DOCKERY, Hernand, Miss.

WANTED—A live Alligator, not less than 5 ft. long; a 7 ft. one preferred. Will pay cash. Must be cheap. Address, COLLECTOR, Lock Box 67, Albion, N. Y.

I WILL exchange a nearly new Winchester single shot rifle with reloading tools, 32 cal., for first-class eggs in sets. Make me an offer. H. C. COOK, Potsdam, N. Y.

I WILL exchange one printing outfit complete, cost \$1.50, for best offer of oölogist's instruments received within one month. J. W. P. SMITH-WICK, Sans Souci, N. C.

WANTED—In large quantities, the following Fossils: Belemnites, Fossil Fish, Trilobites (*Calymene sinuaria*), Pentremites (*pyriformis* or *godonii*), and Sharkteeth. Address stating lowest cash or exchange prices, FRANK H. LATTIN, Albion, N. Y.

TO EXCHANGE—First-class eggs in sets with data of, 7, 13, 22, 33, 214, 244, 261, 277, 278-b, 282, 320 and nests, 263, 656, 666a, 673, 688, 763, also single eggs for eggs in sets with data and pair of climbers. FRED W. CURTIS, Box 209, Wauwatosa, Wis.

I HAVE first class eggs and Vols. 1, 3, 3, 4 and 7 of the Golden Days to exchange. L. A. DOCKERY, (Care of Miss. Coll.) Clinton, Miss.

FOR THE BEST offer of eggs amounting to \$10 or over, I will give a self-inking press, type and ink. The press alone cost \$10. Offers received until April 1st. MOSES L. WICKS, JR., No. 1 So. Hill St., Los Angeles, Cal.

WANTED—Second-hand books on Ornithology or Natural History, any branch, and Indian Relics (Mound Builders), in exchange for "Job Lots." Address, FRANK H. LATTIN, Albion, N. Y.

END-BORED singles of 7, 10, 12, 23, 51, 63a, 93, 148, 151, 153, 154, 157, 179, 182, 209, 211, 214, 231, 233, 249, 259, 261, 261a, 263, 304, 315, 317, 351, 357, 375, 378, 382, 383, 420, 431, 439, 460, 464, 477, 480, 494, 496, 516, 520, 522, 525, 520, 543, 550, 601, 612, 613, 617, for 1st-class, original sets, with full data, "Ornithologist and Oölogist," for 1887 and 1888, for best offer. A. C. KEMPTON, Riverside, N. B.

I HAVE a few sets of one egg each with data of the Bridled Tern which I will exchange at \$4.00 per egg, for any of the following species. Sept. Bulletin prices: Nos. 2, 4, 41, 51, Warblers any species, 122, 128, Vireos, any, 157, 168, 181, 197, 244, 245, 248, 263, 264, Orioles and Humming-birds any, 293, 312, 315, 316, 317, 320, 326, 327, 354, 355, 357, 361, 375, 382, 387, 388, 394, 395, and almost any species from 400 to 764a and also for any of the "Wants" mentioned in my other exchange notices of this issue. FRANK H. LATTIN, Albion, N. Y.

Penmanship TAUGHT
BY MAIL.
Circulars and elegant specimens of penmanship sent for stamp. One dozen cards with your name written in my best hand, 15 cents. Address, C. W. TREAT, Brooklyn, O.

DESIRABLE EGGS!
I have for sale eggs in sets of each, with data, of the following species, collected in '88 on Gaulling (Galden) Key, Bahamas.

Sooty Tern, \$0.39
Noddy Tern,55
BRIDLED TERN, 3.50
Sent post-paid at these prices. Identification positive. FRANK H. LATTIN, Albion, Orleans Co., N. Y.

BARGAIN LOTS.

We have accumulated a large lot of odds and ends, some of which are very desirable and others not, but in every case they are worth much more than the prices we ask for them. We have packed them up in "Lots" and have commenced to list them in this OOLOGIST at prices, in many cases, less than actual cost to us. At our low rates we cannot send prepaid, but will send by mail, express or freight, securely packed, at purchasers expense. In order that our patrons may know in which way it will be best to have them shipped the weight of each lot is given. As a rule lots under 2 lb will go cheaper by Mail, 2 to 15 lb by Express, and over the latter weight by Freight; in all cases we will ship the way which will be of the least expense to our patrons. If ordered by Mail send one cent per oz. additional for postage.

Address, **FRANK H. LATTIN, Albion, N. Y.**

NO.	DESCRIPTION.	PRICE
1	50 Sand Crab Backs, from Martha's Vineyard, weight 10 oz.	\$0.40
2	120 Sand Crab Backs, 18 oz.75
3	12 Sea Spider Backs, weight 4 oz.25
5	8 King Crabs, Sea Spider. Egg Case of Périwinkle, 2 Skate Eggs, 3 or 4 shells, &c. poor.50
9	16 imperfect Brass Blowpipes, 5 oz.40
10	Lot of Cool. & Western Spec. Silver Ore, &c., 3 lb.30
12	50 Strombus alatus, a fine showy Shell from the Bahamas the lips on this lot are broken or we would not sell for less than \$5.00 these in this lot will retail quick at 5c. each, 4lb.	\$1.00
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21	9 pol. Pearl Plates, Chinese Shells, 2½lb.90
23	20 Little Conchs, 10 Rock Murex and 2 Cones, 10 oz.30
26	Lot Mixed Shells for Fancy Work, 1¼lb.25
29	9 Sun, 1 Fulgur, and 1 valute Shells, Organ Pipe and Branch Corals, and 1 pint small Brown and White spotted Bivalves for Fancy Work, 2½lb.50
37	60 Showy valves of Pecten irradians, 2 Silver lips, 2 Crab backs, 12 oz.50
38	70 Moss Agate Clippings from Rawhide Butte Wyo., 10 oz.	1.00
39	30 Small Carnelians, Lake Pepin, Minn. 3 oz.75
42	1 Mammoth and Curious Sponge Bahamas size 8 in. x 12 in., 6 oz.50
45	8 Small Sand tubes, 10 Moss Agates, 3 Rattle Snake Rattles, 3 var. Ivory Nuts, 3 dry Tarantulas, 8 oz.75
46	16 2d class Nests of the Tarantula or	
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66 to 70	Each contain a fine 1 in. by 1 in. spec. of the following Minerals:—Porphyry, Gneiss, Tourmaline, Novaculite, Agatized and Petrified Wood, Tale, Chalcopyrite, French Sandstone, Serpentine, and Magnesite, 15 oz.25
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84	Pkg. of 10 Minerals, 5 Iowa and Mazon Creek Fossil Ferns, 4 Mica, Hematite, 3 Drusy Qtz., 1 each of Cuingorum, Qtz. Xtals, Tufa, Lithomarge, Cornudum, Green Feldspar, Andalusite, Enstatite, Blk. Mica, Asbestos, and Chalcedony, 3½lb.60
88	10 oz. Creip, 5 oz. White Lily, 5 oz. White Rose leaf, and 8 oz. small White Bivalve Shells. The entire lot is a splendid assortment of White Shells for fancy work. 2½lb.	1.00
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102	10 Nam. Minerals, 6 Clusters of Gypsum Xtals, 24 Halite from Syracuse, N. Y., 3 Psilomelane? 3½lb.40

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—THE ❄ OOLOGIST.❄

—FOR THE—

STUDENT OF BIRDS,
THEIR NESTS AND EGGS,

VOLUME VI.

ALBION, N. Y.:
FRANK H. LATTIN, PUBLISHER,
1889.

A. M. EDDY,
PRINTER AND BOOKBINDER
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Vol. VI,

ALBION, N. Y., JAN., 1889.

No. 1

Breeding Habits of The Bridled Tern.

(*Sterna onychotis*.)

By C. J. MAYNARD.

Just to the eastward of Andros Island, one of the Bahamas, on the extreme outer edge of the reef, lie the Grassy Keys. These are three small Islands, the largest of which cannot be above a half mile in length by only a few hundred yards across.

South of these islets lie a large chain of keys known as the Washerwomen. There are something like sixty of these islets in all, including the smallest sizes, for they vary in area from the smallest point of jagged rock, wave-washed during winter storms, and in summer affording a scanty breeding ground for small colonies of Least Terns, to high rocky keys, embracing ten or twelve acres.

As remarked, these keys rise from one reef which borders Andros; and consequently they lie directly on the margin of that remarkable estuary of deep water that nearly divides the great Bahama Banks in twain, which is known as the Tongue of Ocean.

This group of islands stretches from the Grassy Keys southward for some thirty or forty miles, thus extending far beyond the southern extremity of Andros; consequently the lower islets are in a very exposed situation, and as the tidesets directly across them from east to west, and *vice versa* during ebb and flow, causing a heavy sea, even during comparatively calm weather, they are considered quite dangerous, and, with the exception of a few spongers who occasionally land on them, are seldom visited by man.

We passed the night of May 5 1884, in lying at anchor in our little vessel under one of the Grassy Keys; but early the next morning found us beating down the long stretch of Washerwomen Keys. In tacking we came close to several of the larger islets: near enough to see the Sooty and Noddy Terns sitting on their nests, but refrained from landing, as we were desirous of reaching the southernmost of the line. At last the man at the masthead reported that there was no land in sight beyond the key which we then had under our lee; and satisfying myself, by ascending the ratlines, that there was nothing in the shape of land between us and Cuba, which would not then have been but fifty miles away, I ordered the skipper to haul in for the last Washerwomen Key, and in a few minutes we were lying in a little harbor under the high rocky cliffs.

In a moment our faithful crew had the boat over the side, and propelled by stout arms, we soon landed on the surf-beaten rocks. As I stepped ashore a cloud of birds, consisting of Frigate Birds, Sandwich, Royal, Sooty, Noddy and Bridled Terns, rose with deafening clamor from the naked top of the rocky key.

A hasty survey of the place soon convinced me that the numerous birds were not as yet breeding, when my attention was attracted by my dog, who always accompanied me. She was pointing at a cavity beneath a huge rocky slab. As I approached, a Bridled Tern scrambled out, dashed past the dog, and with a scream, rose into the air only to fall dead on the rocks. For, suspecting that she was breeding, I shot her.

and stooping down, guided by my dog's nose, I soon discovered her single egg. This was my first specimen, but later, both on the more northern Washerwomen, on Galden Key and on the Ship Channel Keys, I found several other eggs. The time of breeding with this species, when undisturbed is about the middle of May, and the eggs are invariably deposited under rocky slabs, often so far under that they could not be reached with our arms. Unlike the Sooty and Noddy Terns, this species is quite shy, and only in one or two instances was I enabled to capture the bird on the nest. Then I came upon the bird suddenly, without its having been aware of my approach.

The eggs of the Bridled Tern are, on an average, smaller than those of the Sooty, and are not usually as pinkish nor as coarsely spotted, but vary somewhat in this respect. Out of some twenty specimens which I collected, only four or five were as large as the smallest Sooty, and about the same number were coarsely spotted, and only two or three were of the decidedly pinkish shade seen in the ground color of the Sooty Tern.

The Bridled Terns are not uncommon on the isolated outer keys of the Bahamas, but, owing to the comparatively inaccessible character of the rocky islets which they frequent, the eggs will probably never be common in collections.—*The Young Ornithologist*.

Wood Thrush and Brown Thrasher in West Virginia.

Wood Thrush, (*Hylocichla ustulata*). This bird, common here during Summer, frequents tracts of low woods, and is very shy and their nests are very hard to find. It was my good fortune, last season, to secure two nests of this Thrush each containing four eggs.

One nest, found May 22nd, contained four eggs, three of them being spotted; this nest, placed on the upright crotch of a swamp oak, two feet from the ground, was composed of leaves and grasses, and lined

with mud and fine rootlets. The bird sat on the nest until I approached within arms-length of her when she left it and alighted on a bush a few rods distant, from where she watched me very attentively only giving an occasional hiss of alarm. The eggs are dotted all over with small black spots the size of a pin head; they are of the usual size measuring 1 x .75 inches.

Late in the evenings and early in the mornings of early spring and summer, this bird's song may be heard in some lonely woodland like the soft notes of a flute or the tinkling of silver bells; this is, in my estimation, the sweetest songster among North American Birds. It has been, aptly termed, "Flute-bird".

Brown Thrasher, (*Harporhynchus rufus*). Of all our spring birds none can excel in power of song our common Brown Thrasher or "Mocking-bird." During the early days of spring he may be seen, perched on some bush pouring forth his soul-stirring notes in one continued strain, and he does not stop at once either, but continues his song hour after hour. I've sat for hours listening to this wonderful mimicker, wondering how long it would take him to split his throat, and I have never tired either and think I never shall. There doesn't seem to be a bird or an animal beyond his powers of mimicry. The scream of the hawk, the chirp of the sparrow and the warbling notes of *V. gilva* are all familiar notes of this great mimicer.

It is very common here during the breeding season and its nests can be found almost anywhere, old log heaps, brush piles, fence rows, thickets of grape vines and thorn bushes all being nesting places of this bird. Nests are also occasionally found on the ground at the foot of a bush; the nests are generally composed of twigs, sticks and leaves, and lined with rootlets, horsehair and a few feathers; but when nests are found on the ground they are simple depressions, lined with rootlets. The eggs, laid here, in May and June are from four to six in number and are greenish-white thickly marked with reddish-brown dots, averaging in size 1 x .80 inches with variations both in

size and color. An egg in my collection, of the usual color, measures 1.30 x 1 inches. This was found June 21 1886 in nest containing one other egg of the usual size; on blowing found egg was rotten.

T. S., White Sulphur Springs, W. Va.

An Unusual Nesting Site; Peculiar Eggs.

Did the readers of the OOLOGIST ever hear of a Catbird building her nest in a tree. In the summer of '85 as I was walking across an old orchard I spied some sticks and twigs protruding from a natural cavity in a dead apple tree. As I approached the spot a Catbird flew from it. The nest contained four eggs, unmistakably those of the *G. carolinensis*. The birds had filled up a cavity almost 9 in. deep with the usual bulky nest. This is one of the most remarkable departures from their usual style of nesting that has fallen under my notice but I as have other collectors often found singularly deformed eggs of various species. One of the most remarkable of these is an egg I obtained from a boy who brought it to me for identification last summer (1887). This was found under a small tree containing a nest with three others. It is of the usual lateral diameter but its length is exactly $2\frac{1}{2}$ times. Another peculiar instance fell under my notice in the summer of 1885. I found a nest containing four eggs of the Catbird. Two were of the common size, one was almost as large as a Robin's egg and the other was perfectly round and hardly larger than a pea! The large one had an almost imperceptible embryo forming, the others were perfectly fresh. This circumstance was commented upon by a friend as follows. "That bird had only material enough for four eggs. She made a mistake in making the first too large and so had to retrench on the other." Who can offer a theory?

W. N. C., Biddeford, Me.

From Western North Carolina.

TO THE EDITOR OF THE OOLOGIST:

I see articles in your highly esteemed and interesting magazine from almost every other southern State, except North Carolina. Now you must not infer from this that we are wanting in bird life. On the other hand, there are few States richer endowed with the feathered tribe. Here in the western part, near Morganton is as good a field for the oologist as he could desire.

Thrushes, Bluebirds, Nuthatches, Warblers, Vireos, Swallows, Finches, Grosbeaks, Tanagers, Orioles, Crows, Jays, Cuckoos, Doves and Woodpeckers are quite abundant; American Quail are plentiful both in the hunting and breeding seasons: Ruffed Grouse are rare; they breed here though. Among the rarer birds are found the Nighthawk, Whip-poor-will, Owls, Hawks, Kildeer, Kingfisher and some Herons. There are also a few Wild Turkeys, but I have never found them breeding: I have an egg, that was said to have been taken near here. I collected 3 sets of Ruby-throated Hummingbird last season; also a Whip-poor-will. Turkey Buzzards breed on the bluffs near the Catawba River: the nests and eggs are very difficult to get to and I have not been rewarded yet with a set of my own collecting. In and around M. on a summer day can be found as many nests as at any other place, I think.

The English Sparrow has within the last three years become an abundant resident; It now surpasses any other bird in numbers. Baltimore Oriole is also common, but it is only recently that I have been able to capture any of their eggs. I got a beautiful set in June last, by means of the apparatus described in the Oct.-Nov. OOLOGIST by A. A., Germantown, Pa. It is not the easiest thing in the world to accomplish this; it requires a steady hand. Hoping your many readers may find something interesting in these lines, I remain

Yours Oologically,

J. A. B., Morganton, N. C.

Birds of Broome Co., N. Y.

It has often occurred to the writer, that if one person in each county should write an article for the *Oologist* on the kinds, number and habits of the birds of his locality, the whole would form a very comprehensive ornithology of the United States. This would be of no little value to the readers of the magazine, by enabling them to compare the birds of their locality with those of any other; and it would also aid in settling some of the problems concerning the migrations of birds.

In hopes that our ornithologists and oologists may be stimulated to take up the work, the following is submitted:

Broome county is rather a poor field for the ornithologist. Owing to the absence of any large body of water, very few aquatic birds are seen within its limits. Geese, Ducks, Loons, etc. are occasionally found in fall and spring when they stop to rest and feed, but go beyond the bounds of our county to breed. Again, farther south, the valley of the Susquehanna forms a natural highway for the migrating birds; but here the valley extends nearly east and west and the birds have left it for a straighter course northward: therefore we are not visited by so many rare migrants as other favored localities. Our unfavorable position, however, does not deter the more common birds from visiting us each year, and their lack of rarity is well made up by their abundance.

Of the Thrushes, the Robin and Wilson's Thrush are the most common and about equal in numbers; after them come the Brown Thrush and Catbird, both quite common; the Wood Thrush is somewhat rare; and the Hermit occurs only as a migrant. The Bluebird is quite common in all parts of the county, and rather outnumbered the Robins.

Chickadees are common at all seasons of the year; Nuthatches and Brown Creepers not so plenty; the Red-bellied Nuthatch is a migrant with us. Two other very common spring and fall migrants are the

Kinglets; for a week or two after their arrival every wood is full of them. The Golden-crowned leads his brother, the Ruby, in point of numbers.

We have the House Wren for a summer resident, and the Marsh Wren for a migrant. The Winter Wren also occurs occasionally.

The most common Warblers are the Summer Yellowbird, Golden-crowned Thrush, Maryland Yellow-throat, Redstart, Yellow-breast Chat, and the Cape May, Black-throated Blue, Black-throated Green, Black and yellow and Black and white Creeping Warblers. The first five, only, are summer residents.

Of Vireos, we have the Red-eyed, White-eyed, Warbling and Yellow-throated. The first is the most common.

Cedar Waxwings are common, appearing even in the winter when they feed on the frozen apples which still hang on the trees.

Except in a few favored localities, the Barn and Cliff Swallow do not breed in this county. The leading representative of the tribe here, is the Bank Swallow. The White-bellied Swallow is also becoming quite common; it nests in bird-houses and holes in trees.

The Sparrows which occur as summer residents, are named in the order of their abundance, as follows:

English, Song, Bay-winged, Chipping, Field, Savanna and Swamp.

As migrants we have the White-throated, White-crowned, Tree and Fox-colored Sparrows. The White-throated Sparrows generally migrate in company with the White-crowned which they greatly outnumber.

The Purple Finch is somewhat erratic in its migrations; some seasons it is found in large numbers and at others very few are seen. It breeds sparingly in this county.

The American Goldfinch and the Snow Bunting are very common; the one in summer, and the other in winter; in fall and spring they are often seen at the same time. The Black Snowbird occurs in spring and fall, but does not stay with us in winter unless the weather is very mild.

In uplands the Chewink is common and

also the Indigo Bunting; the latter seems to be increasing in numbers here.

Our Starlings, named in the order of their abundance, are Red-winged Black-bird, Meadow Lark, Purple Grackle, Bob-link, Baltimore Oriole, and Cowbird.

The Crow is very common, especially in spring and autumn, when large flocks assemble here. In the more retired parts of the county, Blue Jays are plenty; during the winter they are often seen on the outskirts of the towns, probably in search of food.

The Shore Lark is most common in fall and spring; a very few remain in the county till July. They probably breed here.

The most abundant Flycatchers are the Kingbirds, followed closely by the Pewee then comes the Wood Pewee, Great Flycatcher and Least Flycatcher.

We have one representative of the Hummingbirds, Ruby-throated. Chimney Swifts are very common and are often found nesting in barns like the Barn Swallow. Both the Whip-poor-will and the Night Hawk occur; the latter in the greatest numbers.

Except the Flicker, the Hairy and Downy Woodpeckers are the most common of their tribe. The Red-headed Woodpecker is not very plenty. During the migrations we have the Yellow-bellied and Red-bellied Woodpeckers; the former is the more common.

The Kingfisher is common along streams, in the banks of which it nests. The Black-billed Cuckoo is quite common; the Yellow-billed species occurs rarely if at all.

Owls are somewhat rare, though the Saw-whet, Screech and Horned Owls may be found in the deeper woods.

Among the Hawks, the Sparrow Hawk is the most common. We have also, the Fish, Marsh, Red-tailed and Red-shouldered Hawks.

The Mourning Doves are very common and are frequently shot by hunters who mistake them for Wild Pigeons. Quails are seldom seen, but the Ruffed Grouse is a common resident. The Green Heron is

very common, and the Great Blue Heron frequently occurs.

The Killdeer, Woodcock and Snipe are not very common. The Spotted Sandpiper is abundant along water. During migrations a few Rails are found, but I believe none stay to breed.

WILLARD N. CLUTE,

Binghamton, N. Y.

Black-capped Chickadee.

On the 13th of last May my brother and I started out on a hunt for oological specimens. We tramped about four or five miles without finding anything worth taking. Then we came to a large piece of woods where we found a blue jay's nest in a small oak tree. It contained one egg. We then tramped around a little, until we came to a part of the woods that was all swampy. It looked a first class place for eggs. As we stood looking around, I saw a black-capped chickadee fly to an old elm stub about three feet high and three inches in diameter. It disappeared in a small knot hole near the top. we crossed over to it, by jumping from one bog to another. As I was anxious to obtain a set for my collection, but when we got there we found they were only building. Both birds were very tame, as they would almost let us touch them. I visited the nest again on the 21st, as I happened to be that way and found it contained a beautiful set of six eggs. They were creamy white, covered with pink spots, thickest on the large end, the average about 21-32 x 15-32. I also took the nest, as I collected nests as well as eggs. I think there is as much, if not more to be learned from the nest than the eggs. It was composed of a layer of green moss then a thick layer of some wooly substance and lined with a thick coating of gray squirrels' hair forming a very warm and comfortable dwelling.

T. W. B.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, — ALBION, N. Y.

Correspondence and Items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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Jottings.

To EDITORS AND PUBLISHERS:—We will send THE OOLOGIST one year, without premium, to any editor or publisher who will give it a notice, favorable or otherwise, and send us a marked copy of his paper containing the same.

It is now high time for Southern oologists to obtain their Great Horned Owl eggs for '89, providing they desire them of their own collecting. About the middle of February is the time for collectors in the latitude of the Middle and New England States to be on the alert.

OLIVER DAVIE'S EGGS. Just as this issue of the OOLOGIST goes to press, we have purchased Mr. Oliver Davie's entire stock of

eggs. A complete catalogue of this collection both of sets and singles will be printed in the Feb. OOLOGIST and will be offered at much less than their real value. We predict a big scramble among collectors after them. The time will come when the name of "Davie" will rank among oologists with that of Audubon and Wilson. What will be the value of the specimens that has aided him in compiling his great work at that time?

On January 3d, ye editor noted the first Horned Lark for 1889. We reprint the following from the YOUNG OOLOGIST of Feb. 1885:

On January 22d, a bitter cold day, brisk west wind, mercury at or near zero, we recorded our first Horned Lark for 1885. Once, twice, thrice we thought we recognized his welcome notes, the last call being to much for us, we started in search of our early visitant. We soon found the little fellow, only a few rods from our office door, running and skipping merrily over the frozen ground, now and then picking up a stray seed, apparently, in spite of the cold, enjoying himself as heartily as if it was a warm, sunny day in April. On Dec. 1st, 1884, while going to West Kendall, we saw four of these birds; we have observed them every month since last February; can we not soon have them recorded as an *occasional* winter resident in Western New York?

Although we endeavored to make our PREMIUM LIST very plain, it appears that to many it is a puzzle, difficult to unravel. Many have the idea that all offers were limited to the 1st of this month. How they could come to this conclusion, we are at loss to understand; for right beneath the date line on the first page we say in bold-face type "The offers made in this List will hold good until Jan. 1st, 1890." A year hence. Others have written to find out whether they can purchase extra premiums or not; while others have sent us the amount named for postage only, for extra premiums, expecting to receive an article in return worth from 50c. to \$1.00, while the amount they have sent is only sufficient to pay Uncle Sam for carrying the parcel from Albion to their P. O. Where and how such ideas and instructions can be found

we fail to find; but, we do find on the 2d page, which is devoted to instructions, a full one-half column, heavily leaded so as to make it conspicuous:

"Remember that any Premium No. mentioned in this PREMIUM LIST will be sent you with the OOLOGIST for '89 for only 50c.; or if you have already subscribed [or do not wish to subscribe] for the OOLOGIST you can purchase any premium desired at any time during the year for 35 cents. In either case the amount named for postage, packing and additional must be sent extra."

And we also say across the top of *twenty-two* other pages, "The OOLOGIST and any premium on this page, 50 cts. Premium alone 35 cts. Postage, packing and additional, extra in either case." And then again we fully illustrate by giving an example on page 3, right beneath the egg cut.

Peculiar Egg of *Corvus Frugivorus*.

On April 22nd, 1886, while out collecting near Wolfville, Nova Scotia, I took a set of Crows eggs which present some peculiarities which I thought some of your readers would be interested in. The nest was situated in the very top of a large spruce tree, their most common choice in this locality, and composed of the usual materials. The eggs were four in number and present so many variations that I describe each separately:

No. 1. Measures 1.71 x 1.15; the background has a decided greenish tint, which shows plainly through the small dots and specks of brownish-black with which it is uniformly scattered.

No. 2. Measures 1.71 x 1.15; the background is much lighter than in the preceding, giving a pure blue. The markings are in large blotches, looking as if dirty water had been sprinkled over it, and are several shades lighter than No. 1.

No. 3. Measures 1.74 x 1.16; and resembles No. 2 both in background and markings, although the latter are more numerous and the whole shade is darker.

No. 4. Measures 1.79 x 1.20; the back-

ground is a light sky-blue, and much the shade of that usually seen in a freshly blown Bluebird's egg. The markings are peculiar; consisting of one large four-sided blotch, about .25 x .15, and three smaller ones on the large end, of almost pure black color, and about a dozen fine specks scattered around them; the greater part of the egg is entirely unmarked, with the exception of a few lines, so dim as hardly to be seen; something like those on the eggs of the Red-winged Blackbird.

Although I have taken many sets, I have never seen an egg similar to No. 4. What say you? AYE CAYT.

The Turkey Buzzard.

This is not a very clean bird, but for usefulness he surpasses all others. The good quality of the Buzzard, as no doubt you know, is to remove the offal which is lying about. Around one of these purtrid carcasses you can see a great number of these birds devouring the flesh with great relish. The Buzzard is also noted for his flight. It is a beautiful spectacle to behold these birds flying in their circuitous routes on a clear day beneath the azure sky, and no landscape is complete without him.

Unlike other birds when on the wing he scarcely moves his wings but with perfect ease remains on high.

They congregate in large numbers to roost and in some dead pine, pass through the land of Nod. The nest is situated on the ground, in rotten logs and stumps. Two eggs are generally the complement, but here is often only one in the nest. The eggs are yellowish white, spotted with brown and purple.

C. W., York Sta., Ala.

Late Nesting of the Grass Finch.

I see in the OOLOGIST of Dec., a note from V. H. L., Potsdam, N. Y., stating that he found a nest of the Grass Finch, on the 6th day of Aug. with fresh eggs.

I found, on the 23d of Aug, '88, a nest of the Grass Finch with three perfectly fresh eggs. I am inclined to think that the Grass Finch lays three sets a season.

M. D. C., Austin, N. H.

Black and Yellow-billed Cuckoos.

In the Oologist for 1888 I have noticed but few articles on the Yellow and Black-billed Cuckoos. Are they not worthy of mention? The past season I have found two sets of each. Although not rare finds, it always gives me pleasure in finding their nests, and studying their ways.

The first that I found was that of the Black-billed. It was placed on the horizontal branch of a thorn apple tree about 15 ft. from the ground. It was very frail, and contained one egg and a young bird about a week old. The mother bird was very anxious as to what would be the outcome of my observations, but I at last left her "Monarch of all I survey" and she was satisfied.

About a week later we had a severe storm and I heard from a friend that the nest was blown down, and the young killed. Foolish bird! I wonder if she took the lesson and built her nest lower another time.

The next nest was that of the Yellow-billed, and contained only one egg. I left the egg a week, but when I returned there was only that one there. Incubation was well nigh complete. Was this not a small set? I am positive it was complete; 1st because I had watched the nest from the beginning; 2nd, because it was in a very retired piece of woods, and not near a highway where collectors might abound. This nest was only one foot from the ground and was simply a platform of sticks.

On July 16th I took a set of two eggs of Black-billed. The nest was made of grass, and was placed in a thorn bush. Incubation was nearly complete.

The last set taken was that of the Yellow-billed and contained four eggs. Incubation was nearly complete. The nest was the best I have seen, and was placed in a clump of hazel bushes about four feet from the ground.

The Black and Yellow-billed Cuckoos are great insect devourers. I think they devour more insects than *any* insect devouring birds. Some writers say they prey on the eggs, and sometimes the young of

other birds. Grant it. Is not the great work they do in devouring those hairy, spiney caterpillars (not so much sought after by other birds) a sufficient reason for their protection? The habits of the two birds are very much alike as far as I have observed. Their feeding grounds are grassy swales, willow swamps, tamarac marshes and damp tracts. I have found the favorite breeding haunts to be the interior of woodlands, small groves, thorny trees and bushes and wooded banks of streams.

Hoping to hear from others on the habits of these two birds, and also the time and range of breeding. I am,

Oologically E. C., Wauwatosa, Wis.



Notes from an Alabama Collector.

Doubtless your readers would like to hear from this state, and as I have not seen many articles from this part of the country, I take the liberty of sending you some gleanings from my note book.

My first set collected was a Turkey Buzzard's, placed on the ground under a pile of oak limbs.

April 2nd. Set of 5 eggs of the Black-capped Chickadee; situated in an old stump about ten ft. high.

April 6th Brown-headed Nuthatch with 6 eggs.

April 20. Brown-headed Nuthatch, two Bluebird's nests and a Mocking-bird's with 4 fresh eggs. Mocking-birds are very common here. This season I found about twenty of their nests, but would not take but a very few.

April 27. Cardinal Grosbeak, 3 fresh eggs. I have found about twelve nests of this bird, and three eggs was the number that each contained.

May 8th. Blue Jay's nest, in an oak about fifteen feet from the ground.

May 11. Brown-headed Nuthatch, four eggs slightly incubated, also a Blue Jay's nest containing four eggs.

May 14. Acadian Flycatcher, 2 fresh eggs; nest situated on the extremity of a limb, also a Summer Red-bird's nest containing four fresh eggs.

May 25. Two sets of Cardinal Grosbeak also a Wood Thrush's nest.

May 26. Great Crested Flycatcher's nest, made of pine needles, wool, feathers and a snake skin, and placed in a Martin box.

May 29. Chimney Swift's nest also collected a set of Bachman's Finch. The nest was placed near a branch in the midst of weeds.

June 7th. Yellow-billed Cuckoo's egg in a Wood Thrush's nest, and, same date, a Yellow-breasted Chat's nest, containing 4 fresh eggs.

June 9th. An Amer. Quail's nest with 17 eggs fresh.

June 13th. Brown Thrasher and a Yellow-breasted Chat's nest containing 4 fresh eggs, about 4 ft. from the ground.

June 14th. Logger-head Shrike's nest with four fresh eggs placed in a small oak tree about 15 ft. from the ground.

June 17th. Yellow-shafted Flicker, six fresh eggs. These eggs were very small, no larger than a Red-head's.

June 24th. Summer Red Bird's nest with 2 eggs, also a Yellow-billed Cuckoo's with 3 eggs slightly incubated.

June 28th. Carolina Wren, 4 fresh eggs placed over the door in an unoccupied house.

The above are some of the sets I collected during the season of '87. I found a number of others, but did not take the eggs.

C. W., York Sta., Ala

The Critic! Carolina Parakeet.

TO THE EDITOR OF THE OOLOGIST:

An article in the Oct. and Nov. No. of the OOLOGIST, 1888, entitled "Carolina Parakeet" and devoted more particularly to the nesting habits of this rare species, engaged my attention while perusing the last interesting number.

Undoubtedly the writer, who signs himself "T. S., Clarinda, Iowa," is a well-meaning collector, and honest in his convictions; but is certainly far from correct in stating that the Parakeet breeds

in Iowa. Many articles creep into the OOLOGIST, as with many other natural history papers, that are not only highly improbable, but I am sorry to say, simple emanations of untruthful collector's brains. Witness an article on the nesting of the Bald Eagle during the last year or so in which the writer describes the eggs as equal in size to goose eggs, whereas they are less than one-fourth of the cubical dimensions.

This little criticism is not intended to apply to the editor of the OOLOGIST, as it is impossible for him to supervise each article. Many other papers are, unfortunately, the exponents of equally ridiculous fabrications, readily detected by experts in the various branches of science, but unfortunately, too often believed by the inexperienced. In conclusion allow the writer to say to all young donators to the columns of any paper never deviate from the truth; never fabricate. Be sure that you know your lesson before you attempt to impart it to others. In other words, "Be sure of your identification and then stick to your text." This, from one who has studied our birds over twenty years, may suggest, at least accuracy in description and identification.
Nov. 20, '88 SCOLOPAX, Kalamazoo, Mich.

Bank Swallows at Picnic Point.

These little fellows are very common on very near all the small lakes in Wisconsin. A very large colony of them has taken possession of the cliffs on Picnic Point overlooking lake Mendota.

They arrive here about the middle of April. The old ones use the same nest year after year; but the young, when they begin to breed, make new nests. Their nests are made by burrowing in the side of the cliff until they get a hole about two feet deep and large enough for the bird to enter. At the end of this hole is placed a number of downy feathers and dry grasses, on which are laid anywhere from three to six white eggs. They leave here about the 1st. of September.

F. S. B. N., Madison, Wis.

Notes, Queries and Information from and for our Correspondents.

E. L. K., Millford, N. H. - The bird you call Wilson Tern, is No. 686, Common Tern.

J. D. S., Guilford, N. Y., writes, that in his vicinity the Chimney Swift builds its nest more frequently in barns than in chimneys.

H. B., Bangor, Me. - We furnish a good set of Taxidermist's instruments for \$2.00.

J. M., Paola, Kan., would like to learn the correct name of a bird known in his locality as the "Milk Bird."

A. M. L., Northford, Conn., would like to know if the Loon ever breeds in his State.

H. C. P., Lane Co., Oregon, would like the address of some reliable assayer.

C. B. C., Odin, Ills., requests some reader of the OOLOGIST to inform him through its columns, the difference between the White-rumped and Loggerhead Shrike; he finds it impossible to distinguish one from the other.

T. S., Sing Sing, N. Y., asks if Cuckoo eggs are very often spotted? and adds that he has a Black-billed Cuckoo's egg which has a very distinct band of dark green spots around the larger end, and large blotches of green (a shade lighter) on the smaller end [Cuckoo eggs are frequently if not usually marbled as you describe.—ED.]

Conundrums.

Why is a Quail like a Chinaman? Without the q there would be a nail (wait).

What is the difference between a sportsman and an oologist? One empties his shells through the side and the other through the end.

Why is a Wood Pewee building its nest like an old toper taking his gin-fizz? They both have a lichen (likin') for it.

Why is a quarry laborer like an oologist? Both are skillful with the drill.

Why is a fall from a tree like a bee? Both have a sharp termination.

Why is Lattin like a rice-pudding? Because without eggs he would be miserable.

What is the difference between Lattin and the boy at the head of the class? One eggssels and the other sells eggs.

What hymn should an oologist sing on finding a last year's Hawk's nest? Nothing but Leaves.

When is a bird not a bird? When its a building.

Why is a Pelican like a gas man? They both carry large bills.

Why is an oologist like a man with the catarrh? They both "Hawk."

Why is h the oologist's favorite letter? Because without it his shells would be sell-

Why is an unknown set of eggs like a stranger at the bank? Both must be identified.

Why is C so useful to oologists? Because without it, how can they form their collections?

How many straws go to make a bird's nest? None; they are all carried.

Why should you be a happy oologist? Because (yo)u are always in luck.

Why is oology like a game of poker? There should be a limit.

Why is g never spherical? Because it is always in egg-shaped.

What language calls to mind birds' eggs? Lattin.

When is a highwayman like a bird? When he's a rob'in'.

When is an egg like a student? When it goes to Latin.

When is egg like a murderer? When it is spotted.

V. H. L., Potsdam, N. Y.

114	2 Large Conch. 2 Valves E. 1. Clam, 1 Pyruia (large), 5 Naticas, 20 Sun Shells, 1 Abalone, 2 Chinese and 2 Japanese Ear Shells, 9 Moss Crosses, 1 Shell and Moss Vase, 1 Branch Coral, 2 1/2 lb.	90
115	95 Second class Resurrection Plants, 2 1/2 lb.	95
116	29 Second-class Abalone or Haliotis Shells, 8 1/2 lb.	1.00

—INDIAN RELICS—

125	6 Small Knives, assorted sizes, 4 oz.	.30
127	12 Ass'd Arrow Heads, 5 oz.	.75
125	6 Knives, well assorted, 8 oz.	.40
129	2 War Club Heads, 6 oz.	.40
131	31 assorted Arrow Heads, 1 lb.	.50
134	3 large Spear Heads, (slightly imp.) and 1 broken one, 8 oz.	.49
135	6 Spear Heads (1 rotary), half imp. 8 oz.	.60
136	25 Arrow Heads, mostly small war points 8 oz.	.75
137	2 small Club Heads and 5 pcs. used either as Knives or Scrapers 7 oz.	.50
138	1 Agate Drill, 6 Flint Spear Heads and 16 Arrow Heads (a few rare forms). The spec. in this lot are broken but at least 2 1/2 of each spec. remains 15 oz.	.75
139	10 finely assorted Knives 15 oz.	1.00
140	3 extra fine Knives 5 oz.	.75
141	6 small Knives 5 oz.	.50
142	12 small Bird and War Points 3 oz.	.40
143	4 good Knives 9 oz.	.75
144	20 pieces, doubtless, used as Knives or Scrapers 1 1/2 lbs.	.75
145	20 Spear Heads, part of them slightly imperfect 1 1/2 lbs.	1.10
146	80 Arrow Heads 2 lbs.	2.00
147	116 Arrow Heads 2 1/2 lbs.	2.50
149	80 large Arrow or small Spear Heads 27oz	1.50
150	15 small Knives 7 oz.	1.00
151	11 medium Knives 12 oz.	1.25
152	11 notched Scrapers 4 oz.	1.25
153	15 Scrapers 8 oz.	1.25
154	125 broken pieces of Arrow Heads, Spear Heads, Knives etc., of Flint, Jasper etc. (various forms of barbs or notches well illustrated) 3 lbs.	1.25
155	1 large Axe, 3 small Axes, 2 Hammer Stones, 18 Spears &c., 6 other pcs. all broken, 11 1/2 lbs.	.50
158	1 fine Axe, broken and mended, 1 small Axe, 1 unnamed pc., 3 lbs.	.75
159	3 Axes, 2 1/2 lbs.	.75
All the above Relics are from the Mounds of the Ohio Valley. And also Lots No. 182 to 189.		
160	5 half shells <i>Venus mercenaria</i> from Ind. Shell Heap Casco Bay, Maine, 5 oz.	.30
161	3 fine shells <i>Buccinum</i> , same as Lot 160, 4 oz.	.30
162	6 <i>Natica</i> , same as 160, 4 oz.	.30
163	1 Leg Bone from Ind. Grave, Mich. fine, 15 in. long, 8 oz.	.35
164	2 13 in. Bones same as 163, 12 oz.	.30
166	28 pcs. Arrow-heads, Huron Co., O. 12 Arrow-heads, Ga. 1 Red Jasper Arrow-head, Ala. 1 lb.	.60
167	23 Arrow-heads &c. and 2 Knives, Mich., 14 Arrow-heads, Va., 3 pcs. pottery, O., 6 spec. named Minerals and Fossils, 2 lbs.	.75
169	30 Arrowhead Chips, Mich. 16 pcs. marked pottery, So. Car. 40 Arrowheads, Spears, &c., of Quartz, Jasper, &c., Ga. 2 1/4 lb.	1.00

170	3 Arrowheads, Pa., 80 Arrowheads, Spears, &c., Ga., 3 Minerals, 2 1/2 lb.	1.50
171	1 War Club head, Ind., 3 Knives, Ga.	
33	Arrowheads, &c., Ga., 2 1/2 lb.	.75
172	3 Me Minerals, 2 pcs., Ind. Bones, 6 extra serrated Arrowheads without base, 4 imp. Spears, 12 imp. Arrowheads, 3 imp. Knives, Ohio, 2 1/2 lb.	.90
174	1 fine flint Drill with point broken, 1 good Flint Chisel, 1 very fine Knife, Ohio. 3 oz.	.80
175	55 imp. Spearheads, Tenn. 3 lb.	1.25
176	85 fair Arrow-heads, Tenn., 2 1/2 lb.	2.00
177	12 fair Spear heads, Tenn., 11oz.	1.00
178	12 " " " 15 oz.	1.00
179	12 " " " 15 oz.	1.00
180	12 " " " 15 oz.	1.00
181	5 Spears and 6 Knives, Tenn., 11 oz.	1.00
182	2 fine Knives, 1 large scrape, 1 Hoe, 7 oz.	1.50
184	30 rude implements from Southern Ind., used for War Club heads, Knives, Scrapers, &c. 3 1/2 lb.	2.00
185	20 Knives, Scrapers, &c., 2 or 3 War Club heads, 10 broken pcs., Ind., 2 1/2 lb.	1.50
186	10 unnotched Scrapers, 6 notched Scrapers, Ind., 6 oz.	1.25
187	4 bunts and 4 com. Arrow-heads, 1 notched and 1 unnotched Scraper, 1 Knife, Ind., 6 oz.	.75
188	An unsorted lot of Knives, Scrapers, &c., 30 pcs 2 1/2 lb.	1.50
189	40 pcs. same as lot 188, 2 1/2 lb.	2.00

MISCELLANEOUS

190	4 dark Sand Dollars, 15 fine White Sand Dollars, 1 imp. Key hole Urchin, 4 imp., Dollars, 6 oz.	.50
191	1 Scriptogram Copying Stamp, complete, surface of stamp imp., but will work cost \$1.35 13 oz.	.50
192	16 advertising Electrotypes will set 80 inches, single column ads. contain cuts of over 20 articles—A bonanza for an Amateur printer, 9 1/4 lb.	1.50
193	20 Pleiocene Fossils <i>Succinea rugosa</i> , Maine, 3 oz.	.40
194	A very fine collection of Iowa Fossils, Carboniferous, 18 pcs., a fine assortment of Ferns, Plants, Sea Weeds, &c., 4 lb.	2.50
195	Another collection same, 12 pcs. but not as fine as last lot, 2 1/2 lb.	1.00
196	Same as 195, 11 pcs., 2 1/2 lb.	.75
197	Same—17 spec. mostly Ferns 2 1/4 lb.	.75
198	40 red and black Glass Beetles, gilt legs and trimmings, 1 in. body good for Taxidermists, 7 oz.	.75
199	1 Crinoid Root and 1 Stem, 4 pcs. Fos. Shark teeth, 1 pol. Fossil Coral, Ia, 14 oz.	.35

BARGAIN LOTS.

(Continued from page 71.)

SECOND CLASS BIRD'S EGGS

Some of the spec. in the following lots are only slightly imp., while others are decidedly so, but in either instance we guarantee them to be worth more than our prices, we have exercised care and have taken considerable pains in packing them and think they will go safely without breakage, but as we are clearing out our 2's we will not duplicate broken specimens.

200 12 Brewer's Blackbirds, 12 Catbirds, 2 Bluebird, 3 var. of Turtle, 12 Flickers, 2 2 Bluebird, 1 elongated and 1 very curious pyriform shaped spec. of Hen fruit, 11 oz. 60
201 15 Brewer's Blkbird, 7 Flicker, 20 Catbird, 20 Bluebird, 1 Canary, 10 oz. 60
202 20 Catbird, 20 Bluebird, 2 Purple Grackle, 2 O. Oriole, 1 Marsh Wren, 3 Cliff Swallow, 10 Robin, 1 Gt. tailed Grackle, 10 oz. 60
203 40 Catbird, 10 Quail, 6 Blue Jay, 10 oz. 70

204 1 Zenaida and 1 White fronted Dove, 1 Screech Owl, 3 Mourning Dove, 6 Quail, 9 Blue Jay, 10 Brown Thrasher, 11 Kingbird, 9 oz. 1.00

In the following Lots we have used Ridgway's No.'s in place of printing the names of the species.

205 9 Eng. Sparrow, 22 Bluebird, 18 Catbird, 2, 480; 4, 261; 5, 378; 1, 242; 2, 278a; 4 Starling, 9 oz. 75

206 1 ea. of 193a, 149, 226, and 236; 2 ea. of 267, 254, 251; 6, 93; 4, 11; 6, 248; 5, 12; 11, 22; 20, 153, 9 oz. 1.50

207 1 ea. of 27, 193a, 51, 42, 135, 257, 259, 245, 237a, 361, 146; 2 ea. of 170, 60; 4 ea. of 312, 320, 5 oz. 1.25

208 2 of 258; 6, 271; 7, 315; 12, 214; 4, 7; 1, 157; 12, 154; 7, 231; 9, 151, 10 oz. 75

209 1 each of 1, 24, 152, 36, 193a, 316, 183, 207, 217, 201, 202, 97, E. S., 135, 143, 181, 68, 182, 77, 42, 123, 114, 32, 61b; 2 of 27; 3 of 52, 1 oz. 2.00

210 3 of 24; 4, 12; 12, E. S.; 4, 151; 13, 211; 5, 261; 2, 13; 2, 214; 11, 157; 3, 320; 2, 41; 3, 304; 2, 289; 2, 261a; 3, 244; 4, 326; 1 ea. of 193a, 170, 143, 231, 231a, 315, 93, 149a, 274, 1, 10 oz. 1.25

211 3 of 22; 2, 23; 7, 214; 2, 151; 6, 231a; 9, 157; 1 ea. of 21, 24, 41, 181, 13, 498, 6 oz. 70

212 7 of 261a; 11, 304; 2 ea. of 289, 1, 12, 7, 277; 1 ea. of 264, 7a, 11, 244, 6 oz. 50

213 3 of 151; 3, 306; 5, 326; 10, 315; 9, 231; 1 ea. of 301, 274, 272, 123, 198, 320, 214, 211, 22, 23, 93, 5 oz. 70

214 16 Black-crowned Night Heron, 23 Louisiana Heron, 1 Reddish Egret, 8 Little Blue Heron, 14 White-crowned Night Heron, 5 Snowy Heron, 1 Green Heron, 2

Alligator, 1 Dove, 1 Cormorant, 2 Tern, 1 Avocet, 4 Skimmer, 3 American Eared Grebe, 20 Laughing Gull, 5 Am. Flamingo, 5 Gannet, 45 Am. Herring Gull. To any one wanting a "bushel" of large eggs, many of which are nearly first-class, will do well to obtain this Lot. 10 1/2 lbs. 7.00

215 35 2nd-class eggs from Sweden: mostly unnamed, 11 oz. 50

216 40 unnamed eggs, many 1st-class ones, chiefly from Australia. Had we not lost the names, many of the eggs in this lot would be worth 25c ea. 10 oz. 1.25

217 10 La Plata Dove from So. Am. 1 Thick-billed Vireo, Bahamas, 3 European Wren and 1 Chiffchaff. Eggs in this lot nearly if not all 1st-class. 4 oz. 1.50

218 The following are from India: 3 Pied Mynah, 2 Bank Mynah, 1 Common Mynah, 3 Corby, 3 Striated Bush Babbler, 2 Weaverbird, 1 Tern. 2 Cockadella from So. Am., 1 of the "famous" Yucatan Jays, and a runt Hen. most of the spec. in this lot are 1st-class. 10 oz. 2.00

Minerals.

The following lots are all good specimens and the reason for closing them out is that we have not the time to attend to our Mineral department as we wish, and shall close out most of our stock:

225 7 1/2 lbs. Tremolite Talc, Jeff. Co. N. Y. 60

226 2 lbs. Quartz and 2 lbs. Smoky Quartz in Calcite, Ct., 3/4 lb. Jasper Conglomerate, 1 lb. Pyrite, Mo.; 1/2 lb. Obsidian, Lip. Isles; 1 1/2 lbs. Sphalerite and Calcite. N. Y.; 3/4 lb. Magnetite, Pa.; 1 lb. Mica, Hematite; 1/2 lb. Calcite, Saxony; 10 1/2 lbs. 80

227 1 1/2 lb. Magnetite, N. Y.; 1 1/2 lb. Mica, Conn.; 1 1/2 lb. Calcite, Pa.; 2 1/2 lb. Pearl Spar, N. Y.; 1/2 lb. Albite, Ct.; 1 lb. Calcite, Mo.; 2 lbs. Amphibole, N. Y.; 3/4 lb. Oolitic Iron, Tenn.; 11 1/4 lb. 1.00

228 3 3/4 lbs. Gypsum, Mich.; 3 1/2 lbs. Marcasite, Ill.; 2 lbs. Galena and Fluorite, Ky.; 3 3/4 lbs. Hematite, Ky.; 13 lbs. 90

229 1 1/2 lbs. Gypsum, Nova Scotia; 4 1/2 lbs. Hematite, Pa.; 1 lb. Selenite, N. Y.; 3 lbs. portions of Geodes, Ia.; 9 3/4 lbs. 60

230 2 1/2 lbs. Tectolite, N. J.; 6 1/2 lbs. Barite, N. Y.; 1 1/2 lbs. Limonite, Pa.; 1 1/2 lbs. Anhydrite, N. S.; 11 1/2 lbs. 1.00

231 5 lbs. Mica, N. H.; 1/2 lb. Nickle Ore, Pa.; 1/2 lb. Barite, Eng.; 1/4 lb. Barite, Ct.; 1/2 lb. Agate, Brazil; 6 1/2 lb. 1.00

232 2 lbs. Pear Spar, Eng.; 4 lbs. Calcite, N. J.; 1/2 lb. Cannel Coal, Eng.; 2 3/4 lbs. Williamsite, Pa.; 1 1/2 lbs. Albite, Ct.; 10 3/4 lbs. 1.00

233 4 3/4 lbs. Calcite on Hematite, Pa.; 3 1/2 lbs. Heavy Spar, Ct.; 1 1/2 Peacock Coal, Pa.; 1 lb. Fluor Spar, Eng.; 10 1/2 lb. 60

234 $4\frac{1}{2}$ lbs. Indurated Clay, Md.; 4 lbs. Apophyllite, N. J.; $\frac{1}{2}$ lb. Picrolite, Md.; $\frac{3}{4}$ lb. Alabaster, N. S.; $9\frac{1}{2}$ lbs. 1.00
 235 $1\frac{1}{2}$ lb. Aragonite, Black Hills; $4\frac{1}{2}$ lbs. Dolomite, N. Y.; $\frac{1}{2}$ lb. Dawsonite, Can.; $6\frac{3}{4}$ lbs. Stilbite, N. J.; $12\frac{1}{2}$ lbs. 1.00
 236 11 lbs. Chromite, Md. 90
 237 contains over 250 spec. of over 60 minerals from all parts of the world; mostly fragments. Have not counted any that is not at least $\frac{1}{2}$ in. greatest extent. Labeled $4\frac{1}{2}$ lbs. 2.00
 Lots 238 to 245 are all from the Black Hills. If you obtained them direct, the freight alone would cost more than our price.
 238 4 lbs. Tufa, Petrified Moss; $5\frac{1}{2}$ lbs. Glassy Quartz; 10 lbs. 1.00
 239 8 lbs. Pink, White Gypsum 80
 240 3 lbs. Pyrites, $1\frac{1}{2}$ lbs. Carbonate Ore, $2\frac{1}{2}$ lbs. Silver Ore, 1 lb. fragments, 1 lb. Barites; 10 lbs. 1.00
 241 $7\frac{3}{4}$ lbs. Tin bearing Ore. 1.00
 242 $13\frac{1}{2}$ lbs. Black Tourmaline 1.25
 243 5 lbs. Dendrites, (Forest Rock); $2\frac{1}{2}$ lbs. Quartz; $7\frac{1}{2}$ lbs. 85
 244 $4\frac{1}{2}$ lbs. Petrified Wood 75
 245 1 lb. Garnets in Schist, $1\frac{1}{2}$ lbs. Gold Ore, $2\frac{1}{2}$ lbs. Galena; $4\frac{1}{2}$ lbs. 60
 246 50 Pebbles of Agate, Carnelian, Jasper, Sard, Chalcedony, &c., from W. Iowa, 14 oz 40
 247 2 lbs. mixed lot spec. unnamed, mostly Colo. $\frac{1}{2}$ lbs. Red Ochre, Me.; $1\frac{1}{2}$ lb. spec. of Dendritic, form curious, Ia.; $\frac{1}{2}$ lb. Carragorom, Pks. Pk.; 3 lbs. Rock Mt. Minerals; 1 lb Hematite, Elba; $8\frac{1}{2}$ lbs. 75
 248 2 lbs. Carbonate Ore, Colo.; $3\frac{1}{2}$ lbs. Copper Pyrites, Arizona; $3\frac{1}{2}$ lbs. Gold-bearing Ore (so called at Denver); $9\frac{1}{2}$ lbs. 1.25
 249 $12\frac{1}{2}$ lbs. of Ore Composed of Galena, Pyrites, Silver, &c., Colo 1.25
 250 1 lb same as last lot, but surface covered with Quartz Xtals: 4 lbs. Mica, Va.; 3 lbs. Massive Golden Ochre, Colo.; $8\frac{1}{2}$ lbs. 1.00
 251 9 lbs. Bog Iron, Mt. Katalidin, Me.; 4 lbs. Pet. Palm, Petrified Forest, Colo.; 13 lbs. 1.00
 252 A 9 lb. spec. of Botryoidal Limonite, Mt. Kat.; 6 lbs. Pet. Palm, Colo.; 15 lbs. 1.25
 253 5 lbs. Copper bearing ore, New Mexico 75
 254 5 lbs. Copper bearing ore, N. M., 75
 255 $4\frac{1}{2}$ lbs. of Rocky Mt. Min. con.pkts. lined with Qtz. Xtals. 3 lbs. Botryoidal Limonite, 8 lbs. 75
 256 $6\frac{1}{2}$ lbs. Bog Iron, Me., $3\frac{1}{2}$ lbs. Pet. Palm, Colo. $10\frac{1}{2}$ lbs. 80
 257 8 lbs. Dendritic Rock broken in 200 pes. Colo., $\frac{1}{2}$ lb Wavellitic Rock. Ark.; $8\frac{1}{2}$ lbs. 50
 258 $1\frac{1}{2}$ lbs., 20 spec. Steatite showing

Actinolite, N. H.; $1\frac{1}{2}$ lbs. Electric Stone; $1\frac{1}{2}$ lbs. Granite, N. Y.; 1lb Tremolite, Ct.; 12 labeled small spec. $5\frac{1}{2}$ lbs. 75
 259 $2\frac{1}{2}$ lbs. Limonite, Ky.; 1lb Bronzite, Pa., Spec. ea. Autonite, Wernerite, Columbite, Beryl, Garnet in Albite, 5 lbs. 50
 260 10 showy small spec. Gypsum Xtals, spec. ca. of Pink Calcite, Hornstone, Microline, Horneblende Schist, Chalcedony, Cyanite, Pet. Palm and Wood, Williamsite, Blue Calcite, Hematite, 3 Tufa, Chalcocopyrite, Bronzite, Magnetite Xtals, 3 lbs. 1.00
 261 1 lb Silicified Wood, 1 lb Chalcocopyrite, $\frac{1}{2}$ lb Hematite, Specular Iron, 2 fine Datolite, 5 rare min., label lost, 14 named mineral spec. good, $4\frac{1}{2}$ lbs. 1.00
 262 2 Granite, Epidote, Microline, Dendrite, Tufa, Tremolite. Polished Agate, 2 pes. Geodes, 2 Chalcocopyrite, Mica Schist and 2 lbs. Fragments fine for Laboratory. Minerals or fancy work, doubtless 50 diff. minerals in the lot, 6 lbs. 90
 263 $4\frac{1}{2}$ lbs. Granite, 3 var., Vt. and N. H., $1\frac{1}{2}$ lbs. Verde Antique, 2 lbs. Pyrites, $\frac{1}{2}$ lb. Mica Schist; 5 lbs. Mica, Black Hills; 13 lbs. 1.25
 264 2 lbs. Magnetic Iron; 2 lbs. Indurated Clay; $\frac{3}{4}$ lb. Feldspar; $1\frac{1}{2}$ Calc Spar, Black Hills; Petoskey "Agate," $\frac{1}{2}$ lb. Clippings, 7 lbs. 60
 265 $3\frac{1}{2}$ lbs. Sphalerite and Siderite; $\frac{3}{4}$ lb. Conglomerate; $1\frac{1}{2}$ lbs. Pearl Spar, Eng.; 1 lb. Limonite. 1 lb. Peacock Coal; $2\frac{1}{2}$ lbs. Copper Pyrites; $\frac{1}{2}$ lb. Barite, $\frac{1}{2}$ lb. Fragments; $\frac{1}{2}$ lb. Pet. Wood, Fos. Coral, Ia.; 12 lbs. 1.00
 266 $1\frac{1}{4}$ lb. Copper Ore, L. S.; $3\frac{1}{4}$ lbs. Cannel Coal, Ky.; $3\frac{1}{4}$ lbs. 50
 267 2 Asphalt, 4 Qz. Xtals, Hematite, 2 Pyroxene, Williamsite, Marcasite, 2 Smoky Qtz., Amethyst, Tufa, Smoky Selenite, 2 Blk. Mica, Cummingsite, Switz. Xtals, Sil. Wood; fine lot: $1\frac{1}{2}$ lbs. 75
 268 Chalcocopyrite, Pumice, Chalcedony, Halite, 2 Datolite, 2 Calcite, 2 Sodolite, Microline, Qz. Xtal, Fluorspar, $\frac{3}{4}$ lb. mixed spec; $1\frac{1}{2}$ lbs. 60
 269 Contains a 10c spec. of each. Fluorspar, Cumberland, Eng.; Quartz Crystal, Hot Springs, Ark.; Chalcedony Geode, Tampa Bay, Fla.; Native Lodestone Magnet Cove, Ark.; Amethyst, Thunder Bay, L. S.

The following are all polished specimens:
 Carnelian, Brazil; Moss Agate, Brazil; Onyx, Germany; Clouded Agate, Brazil; Labradorite, Labrador; Crocodolite or Tiger Eye, So. Africa; Bird's Eye Coral, Iowa; Fish Egg Coral, Iowa; we mail this lot prepaid 1.00

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English Partridge 5c each; Chuckar Partridge 8c; French Partridge 10c; Barbary Partridge 15c; Lesser Kestrel Hawk 16c; Rook 6c; Whinchat 6c; Skylark 6c; Great Crested Grebe 10c; Little Grebe 6c; Mediterranean Gull 10c; Red-backed Shrike 6c. Orders under \$1.00, send 10c extra for postage.

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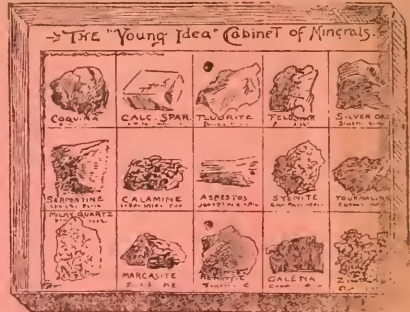
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Your name and address will be inserted in any department, 1 month for 10 cts.; 3 months, 25 cts.; 6 months, 40 cts.; 1 year, 75 cts. Should you desire to have your name printed in more than one department, one-half of these rates will be charged for each additional one.

Live collectors will not be long in observing the importance of keeping their names standing in this Directory. Collectors and dealers desiring to make sales, purchases or exchanges will not only write to the parties whose names appear in this directory for their wants, but will also keep them posted on "bargains" that they may have for sale cheap; publishers having papers etc., that would be of interest to the persons whose names appear in this Directory, will recognize the importance of placing samples etc. in the hands of *Live Collectors* and will act accordingly.

We can as yet make no statements but we shall not be surprised to hear from collectors that receive as high as *Fifty Letters*, Postals, Circulars, Samples etc. from having their names inserted *one time* at a cost of only **10 CENTS** in this Directory.

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J. Warren Jacobs, Waynesburg, Pa.
C. O. Trowbridge, Framingham, Mass.
Ernest D. Murdoch, Oak's Corners,
Ontario Co., N. Y.

S. A. Taft, Aiken, S. C.
Fred Corless, Los Gatos, Cal.

Bird Skins.

H. Myers, Chatham, Ont., Canada.
Jessé F. Craven, Holley, N. Y.

Taxidermy.

Geo. T. Gueff, Brockport, N. Y.

Insects.

H. J. Twiggs, Somerville, Augusta, Ga.

Shells.

J. A. Singley, Giddings, Lee Co., Texas.

Minerals.

Leo Mahler, No. 238 E. 39th St., New
York, N. Y.

Fossils.

Homer D. Hill, Morris, Ills.

Indian Relics.

James P. McGill, South Bend, Ind.

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Erwin G. Ward, Box 126, Palmer, Mass.

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A Red-headed Family.

"Ce'tingly I ken. ce'tingly seh," said my Cracker host, taking down his long flint-lock rifle from over the cabin door and slipping his frowzy head through the suspension-strap of his powder-horn and bullet-pouch. "Ce'tingly, seh, I ken cyarry ye ter wha' them air birds had their nestis las' yer."

I had passed the night in the cabin, and now as I recall the experience to mind, there comes the grateful fragrance of pine wood to emphasize the memory. Corn "pones" and broiled chicken, fried bacon and sweet potatoes, strong coffee and scrambled eggs (a breakfast, indeed, to half persuade one that a Cracker is a *bon vivant*) had just been eaten. I was standing outside the cabin on the rude door-step. Far off through the thin pine woods to the eastward, where the sun was beginning to flash, a herd of "scrub" cattle were formed into a wide skirmish line of browsers, led by an old cow, whose melancholy bell clanged in time to her desultory movements. Near by, to the westward, lay one of those great gloomy swamps, so common in Southeastern Georgia, so repellent and yet so fascinating, so full of interest to the naturalist, and yet so little explored. The perfume of yellow jasmine was in the air, along with those indescribable woody odors which almost evade the sense of smell, and yet so pleasingly impress it. A rivulet, slow, narrow and deep, passed near the front of the cabin with a faint, dreamy murmur and crept darkling into the swamp between dense brakes of cane and bay-lashes.

"Ye-as, seh, I ken mek er bee-line to that air ole pine snag. Hit taint more'n half er mile out yender," continued my host and volunteer guide, as we climbed the little wormfence that inclosed the house; but I allus called 'em air birds woodcocks: didn't know 'at they hed any other name: allus thut 'at a Peckwood wer' a lectle, tinty, stripedy feller: never hyeard er them air big

ole woodcocks a bein' called Peckwoods."

He led and I followed into the damp, moss-scented shadows of the swamp, under cypress and live-oak and through slender fringes of cane. We floundered across the coffee-colored stream, the water cooling my India-rubber wading-boots above the knees, climbed over great walls of fallen tree-holes, crept under low-hanging festoons of wild vines, and at length found ourselves wading rather more than ankle-deep in one of those shallow cypress lakes of which the larger part of the Okefenokee region is formed. I thought it a very long half-mile before we reached a small tussock whereon grew, in the midst of a dense underbrush thicket, some enormous pine trees.

"Ther'," said the guide, "thet air snag air the one. Sorter onter tother side ye'll see the hole, 'bout twenty foot up. Kem yer, I'll show hit ter ye."

The "snag" was a stump some fifty feet tall, larkless, smooth, almost as white as chalk, the decaying remnant of what had once been the grandest pine on the tussock.

"Hello, yer"! Hit's ben to work sone more since I wer' yer' las' time. Hit air done dug another hole!"

As he spoke he pointed indicatively, with his long, knotty fore-finger. I looked and saw two large round cavities, not unlike immense anger-holes, running darkly into the polished surface of the stump, one about six feet below the other, the lower twenty-five feet above the ground. Surely it was no very striking picture, this bare, weather-whitened column, with its splintered top and its two orifices, and yet I do not think it was a weakness for me to feel a thrill of delight as I gazed at it. How long and how diligently I had sought the home of *Campylilus principalis*, the great king of the red-headed family, and at last I stood before its door!

At my request, the kind Cracker now left me alone to prosecute my observations.

"Be in ter dinner?" he inquired as he

turned to go.

"No; supper," I responded.

"Well, tek cyare ev yerself," and off he went into the thickest part of the cypress.

I waited awhile for the solitude to regain its equilibrium, after the slashing tread of my friend had passed out of hearing; then I stole softly to the stump and tapped on it with the handle of my knife. This I repeated several times. *Campephilus* was not at home, for if he had been I should have seen a long, strong, ivory-white beak thrust out of the hole up there, followed by a great red-crested head turned sidewise so as to let fall on me the glint of an iris unequalled by that of any other bird in the world. He had gone out early. I should have to wait and watch; but first I satisfied myself by a simple method that my watching would probably not be in vain. A little examination of the ground at the base of the stump showed me a quantity of fresh wood-fragments, not unlike very coarse saw-dust, scattered over the surface. This assured me that one of the excavations above was a new one, and that a nest was either building or had been finished but a short while. So I hastily hid myself on a log in a clump of bushes, distant from the stump about fifty feet, whence I could plainly see the holes.

One who has never been out alone in a Southern swamp can have no fair understanding of its loneliness, solemnity and funereal sadness of effect. Even in the first gush of Spring (it was now about the sixth of April) I felt the weight of something like eternity in the air, not the eternity of the future, but the eternity of the past. Everything around me appeared old, sleepy and musty, despite the fresh buds, tassels and flower-spikes. What can express dreariness so effectually as the long moss of those damp woods? I imagined that the few little birds I saw flitting here and there in the tree tops were not so noisy and joyous as they would be when, a month later, their northward migration should bring them into our greening Northern woods. As the sun mounted, however, a cheerful twitter ran with the gentle breeze

through the bay thickets and magnolia clumps, and I recognized a number of familiar voices; then suddenly the gavel of *Campephilus* sounded sharp and strong a quarter-mile away. A few measured raps, followed by a rattling drum call, a space of silence rimmed with receding echoes, and then a trumpet-note, high, full, vigorous, almost startling, cut the air with a sort of broadsword sweep. Again the long-roll answered, from a point nearer me, by two or three hammer-like raps on the resonant branch of some dead cypress-tree. The king and queen were coming to their palace. I waited patiently, knowing that it was far beyond my power to hurry their movements. It was not long before one of the birds, with a rapid cackling that made the wood rattle, came over my head, and went straight to the stump, where it lit, just below the lower hole, clinging gracefully to the trunk. It was a superb specimen, the female, and I suspected that she had come to leave an egg. I could have killed her easily with the little sixteen-gauge breech-loader at my side, but I would not have done the act for all the stuffed birds in the country. I had come as a visitor to this palace, with the hope of making the acquaintance I had so long desired, and not as an assassin. She was quite unaware of me, and so behaved naturally, her large gold-amber eyes glaring with that wild sincerity of expression seen in the eyes of but few savage things.

After a little while the male came bounding through the air, with that vigorous galloping flight common to all our woodpeckers, and lit on a fragmentary projection at the top of the stump. He showed larger than his mate, and his aspect was more fierce, almost savage. The green-black feathers near his shoulders, the snow-white lines down his neck, and the tall red crest on his head, all shone with great brilliancy, whilst his ivory beak gleamed like a dagger. He soon settled for me a question which had long been in my mind. With two or three light preliminary taps on a hard heart-pine splinter, he proceeded to beat the regular woodpecker drum call, that long rolling

rattle made familiar to us all by the common red-head (*Melanerpes erythrocephalus*) and our other smaller woodpeckers. This peculiar call is not, in my opinion, the result of elasticity or springiness in the wood upon which it is performed, but is effected by a rapid, spasmodic motion of the bird's head, imparted by voluntary muscular action. I have seen the common Red-head make a soundless call on a fence-stake where the decaying wood was scarcely hard enough to prevent the full entrance of his beak. His head went through the same rapid vibration, but no sound accompanied the performance. Still, its resonance in the wood that the bird desires, and it keeps trying until a good sounding-board is found.

It was very satisfying to me when the superb King of the Woodpeckers, *pie noir a bec blanc*, as the great French naturalists named it, went over the call, time after time with grand effect, letting go between trials one or two of his triumphant trumpet-notes. Hitherto I had not seen the *Campephilus* do this, though I had often heard what I supposed to be the call. As I crouched in my hiding-place and furtively watched the proceedings, I remember comparing the birds and their dwelling to some half-savage lord and lady and their isolated castle of medieval days. A twelfth century bandit nobleman might have gloried in trigging himself in such apparel as my ivory-billed woodpecker wore. What a perfect athlete he appeared to be, as he braced himself for an effort which was to generate a force sufficient to hurl his heavy head and beak back and forth at a speed of about twenty-eight strokes to the second!

All of our woodpeckers, pure and simple, that is, all of the species in which the woodpecker character has been preserved almost unmodified, have exceedingly muscular heads and strikingly constricted necks; their beaks are nearly straight, wedge-shaped, fluted or ribbed on the upper mandible, and their nostrils are protected by hairy or feathery tufts. Their legs are strangely short in appearance, but are exactly adapted to their need, and their tail-feathers are tipped with stiff points. These features are

fully developed in the *Campephilus principalis*, the bill especially showing a size, strength and symmetrical beauty truly wonderful.

The stiff pointed tail-feathers of the woodpecker serve the bird a turn which I have never seen noted by any ornithologist. When the bird must strike a hard blow with its bill, it does not depend solely upon its neck and head; but, bracing the points of its tail-feathers against the tree, and rising to the full length of its short, powerful legs, and drawing back its body, head and neck to the farthest extent, it dashes its bill home with all the force of its entire bodily weight and muscle. I have seen the ivory-bill, striking thus, burst off from almost flinty-hard dead trees fragments of wood half as large as my hand; and once in the Cherokee hills of Georgia I watched a pileated woodpecker (*Hylotomus pileatus*) dig a hole to the very heart of an exceedingly tough, green, mountain hickory tree, in order to reach a nest of winged ants. The point of ingress of the insects was a small hole in a punk knot; but the bird, by hopping down the tree tail foremost and listening, located the nest about five feet below, and there it proceeded to bore through the gnawed, cross-grained wood to the hollow.

Of all our wild American birds, I have studied no other one which combines all of the elements of wildness so perfectly in its character as does the ivory-billed woodpecker. It has no trace whatever in its nature of what may be called a tameable tendency. Savage liberty is a prerequisite of its existence, and its home is the depths of the woods, remotest from the activities of civilized man. It is a rare bird, even in the most favorable regions, and it is almost impossible to get specimens of its eggs. Indeed, I doubt if there are a dozen cabinets in all the world containing these eggs; but they are almost exactly similar in size, color and shape to those of *Hylotomus pileatus*, the only difference being that the latter are, upon close examination, found to be a little shorter, and, as I have imagined, a shade less semi-transparent porcelain white, if I

may so express it.

The visit of my birds to their home in the stump lasted nearly two hours. The female went into and out of the hole several times before she finally settled herself, as I suppose on her nest. When she came forth at the end of thirty or forty minutes, she appeared, exceedingly happy, cackling in a low, harsh, but rather wheedling voice, and evidently anxious to attract the attention of the male, who in turn treated her with lofty contempt. To him the question of a new egg was not worth considering. But when she at last turned away from him, and mounting into the air, galloped off into the solemn gloom of the cypress wood, he followed her, trumpeting at the top of his voice.

Day after day I returned to my hiding-place to renew my observations, and, excepting a visitation of mosquitoes now and then, nothing occurred to mar my enjoyment. As the weather grew warmer the flowers and leaves came on apace, and the swamp became a vast wilderness of perfume and contrasting colors. Bird songs from migrating warblers, vireos, finches and other happy sojourners for a day (or mayhap they were all nesting there, I cannot say, for "I had larger fish to fry"), shook the wide silence into sudden resonance. Along the sluggish little stream between the canebrakes, the hermit-thrush and catbird were met by the green heron and the belted kingfisher. The snake-bird, too, that veritable water-dragon of the South, was there, wriggling and squirming in the amber-brown pools amongst the lily-pads and lettuce.

At last, one morning, my woodpeckers discovered me in my hiding-place; and that was the end of all intimacy between us. Thenceforth my observations were few and at a long distance. No amount of cunning could serve me any turn. Go as early as I might, and hide as securely as I could, those great yellow eyes quickly espied me, then there would be a rapid and long flight away into the thickest and most difficult part of the swamp.

I confess that it was with no little debate that I reached the determination that it was

my duty to rob that nest in the interest of knowledge. It was the first opportunity I ever had had to examine an occupied nest of the *Campephilus principalis*, and I felt that it was scarcely probable that I should ever again be favored with such a chance. With the aid of my Cracker host, I erected a rude ladder and climbed up to the hole. It was almost exactly circular, and nearly five inches in diameter. With a little axe I began breaking and hacking away the crust of hard outer wood. The cavity descended with a slightly spiral course, widening a little as it proceeded. I had followed it nearly five feet when I found a place where it was contracted again, and immediately below was a sudden expansion, at the bottom of which was the nest. Five beautiful pure white eggs of the finest old-china appearance, delicate, almost transparent, exceedingly fragile and, to the eyes of a collector, vastly valuable, lay in a shallow bowl of fine chips; but in breaking away the last piece of wood-crust, I jerked it a little too hard, and those much coveted prizes rolled out and fell to the ground. Of course they were "hopelessly crushed," and my feelings with them. I would willingly have fallen in their stead, if the risk could have saved the eggs. I descended ruefully enough, hearing as I did so the loud cry of *Campephilus* battling around in the jungle. Once or twice more I went back to the spot in early morning, but my birds did not appear. I made minute examination of the rifled nest, and also tore out the other excavation, so as to compare the two. They were very much alike, especially in the jug-shape of their lower ends. From a careful study of all the holes (apparently made by *Campephilus*) that I have been able to find and reach in either standing or fallen trees, I am led to believe that this jug-shape is peculiar to the ivory-bill's architecture, as I have never found it in the excavations of other species, save where the form was evidently the result of accident. The depth of the hole varies from three to seven feet, as a rule, but I found one that was nearly nine feet deep and another that was less than two. Our smaller woodpeck-

ers, including *Hydromys pileatus*, usually make their excavations in the shape of a gradually widening pocket, of which the entrance is the narrowest part.

It is curious to note that (beginning with the ivory-bill and coming down the line of species in the scale of size) we find the red mark on the head rapidly falling away from a grand scarlet crest some inches in height to a mere touch of carmine or dragon's blood on crown, nape, cheek, or chin. The lofty and brilliant head-plume of the ivory-bill, his powerful beak, his semi-circular claws and his perfectly spiked tail, as well as his superiority of size and strength, indicate that he is what he is, the original type of the woodpecker, and the one pure species left to us in America. He is the only woodpecker which eats insects and larvae (dug out of rotten wood) exclusively. Neither the sweetest fruits nor the oiliest grains can tempt him to depart one line from his hereditary habit. He accepts no gifts from man, and asks no favors. But the pileated woodpecker, just one remove lower in the scale of size, strength and beauty, shows a little tendency towards a grain and fruit diet, and it also often descends to old logs and fallen boughs for its food, a thing never thought of by the ivory-bill. As for the rest of the red head family, they are degenerate species, though lively, clever and exceedingly interesting. What a sad dwarf the little downy woodpecker is when compared with the ivory-bill! and yet to my mind it is clear that *Picus pubescens* is the degenerate off-shoot from the grand *campephilus* trunk.

Our red-headed woodpecker (*M. erythrocephalus*) is a genuine American in every sense, a plausible, querulous, aggressive, enterprising, crafty fellow, who tries every mode of getting a livelihood, and always with success. He is a woodpecker, a nut-eater, a cider-taster, a judge of good fruits, a connoisseur of corn, wheat and melons, and an expert fly-catcher as well. As if to correspond with this versatility of habit, his plumage is divided into four regular masses of color. His head and neck are crimson, his back, down to secondaries, a brilliant

black, tinged with green or blue in the gloss; then comes a broad girdle of pure white, followed by a mass of black at the tail and wing-tips. He readily adapts himself to the exigencies of civilized life. I prophesy that, within less than a hundred years to come, he will be making his nest on the ground, in hedges or in the crotches of orchard trees. Already he has begun to push his way out into our smaller Western prairies, where there is no dead timber for him to make his nest-holes in. I found a compromise-nest between two fence-rails in Illinois, which was probably a fair index of the future habit of the red-head. It was formed by pecking away the inner sides of two vertical parallel rails, just above a horizontal one, upon which, in a cup of pulverized wood, the eggs were laid. This was in the prairie country between two vast fields of Indian corn.

The power of sight exhibited by the red-headed woodpecker is quite amazing. I have seen the bird, in the early twilight of a summer evening, start from the highest spire of a very tall tree, and fly a hundred yards straight to an insect near the ground. He catches flies on the wing with as deft a turn as does the great-crested fly-catcher. It is not my purpose to offer any ornithological theories in this paper; but I cannot help remarking that the farther a species of woodpecker departs from the feeding-habit of the ivory-bill, the more broken up are its color-masses, and the more diffused or degenerate becomes the typical red tuft on the head. The golden-winged woodpecker (*Colaptes auratus*), for instance, feeds much on the ground, eating earth-worms, seeds, beetles etc.; and we find him taking on the colors of the ground-birds with a large loss of the characteristic woodpecker arrangement of plumage and color-masses. He looks much more like a meadow-lark than like an ivory-bill! The red appears in a delicate crescent, barely noticeable on the back of the head, and its bill is slender curved and quite unfit for hard pecking. On the other hand, the downy woodpecker and the hairy woodpecker, having kept well in the line of the typical feeding habit,

though seeking their food in places beneath the notice of their great progenitor, have preserved in a marked degree an outline of the ivory-bill's color-masses, degenerate though they are. The dwarfish, insignificant looking *Picus pubescens* pecking away at the stem of a dead iron-weed to get the minute larvæ that may be imbedded in the pith, when compared with *Campephilus principalis* drumming on the bole of a giant cypress-tree, is like a Digger Indian when catalogued in a column with men like Goethe and Gladstone, Napoleon and Lincoln.

I have been informed that the ivory-bill is occasionally found in the Ohio valley: but I have never been able to discover it north of the Cumberland range of mountains. It is a swamp bird, or rather it is the bird of the high timber that grows in the low wet soil: its principal food is a large flat-headed timber-worm, known in the South as *borer* or *saw-worm*, which it discovers by ear and reaches by diligent and tremendously effective pecking. A Cracker deer-stalker whom I met at Blackshear, Georgia, gave an amusing account of an experience he had had in the swamps. He said:

"I had turned in late, and got to sleep on a tussock under a big pine, an' slep' tell sunup. Wull, es ther' I laid flat er my back an' er snorin' away, kerwhack sumpen tuck me in the face an' eyes, jes' like spankin' er baby, an' I wuk up with er gret chunk er wood ercross my nose, an' er blame ole woodcock jest er whangin' erway up in thet pine. My nose hit bled an' bled, an' I hed er good mint er shoot thet air bird, but I cudn't stan' the expense er the thing. Powder'n' lead air mighty costive. Anyhow I don't s'pose 'at the ole woodcock kuowed 'at hit'd drapped thet air fraggment onto me. Ef hit'd er 'peared like's ef hit wer' 'joyin' the j-ke any, I wud er shot hit all ter pieces ef I d er hed ter lived on turpentine all winter!"

Of the American Woodpecker there are more than thirty varieties, I believe, nearly every one of which bears some trace of the grand scarlet crown of the great ivory-billed king of them all. The question arises, and I shall not attempt to answer it, whether the

ivory bill is an example of the highest development, from the dowdy woodpecker, say, or whether all these inferior species and varieties are the result of degeneracy? Neither Darwin nor Wallace has given us the key that certainly unlocks this very interesting mystery.

The sap-drinking woodpeckers (*Sphyrapicus*), of which there are three or four varieties in this country, appear to form the link between the fruit-eating and non-fruit-eating species of the red-headed family. From sipping the sap of the sugar-maple to testing the flavor of a cherry, a service-berry or a haw-apple, is a short and delightfully natural step. How logical, too, for a bird, when it has once acquired the fruit-eating habit, to quit delving in the hard green wood for a nectar so much inferior to that which may be had ready bottled in the skins of apples, grapes and berries! In accordance with this rule, *M. erythrocephalus* and *Centurus carolinus*, though great tipplers, are too lazy or too wise to bore the maples, preferring to sit on the edge of a sugar-trough, furtively drinking therefrom leisurely draughts of the saccharine blood of the ready tapped trees. I have seen them with their bills stained purple to the nostrils with the rich juice of the blackberry, and they quarrel from morning till night over the ripest June-apples and reddest cherries, their noise making a bel-lam of the fairest country orchard.

The woodpecker family is scattered widely in our county. In the West Canadian woods one meets, besides a number of the commoner species, Lewis's woodpecker, a large, beautiful and rare bird. The California species include the Nuttall, the Harris, the Cape St. Lucas, the white-headed and several other varieties, all showing more or less kinship to the ivory-bill. Lewis's woodpecker shows almost entirely black, its plumage giving forth a strong greenish or bluish lustre. The red on its head is softened down to a fine rose-carmine. It is a wild, wary bird, flying high, combining in its habits the traits of both *Hylotanus pileatus* and *Campephilus principalis*.

In concluding this paper a general de-

cription of the male ivory-bill may prove acceptable to those who may never be able to see even a stuffed specimen of a bird, which, taken in every way, is, perhaps, the most interesting and beautiful in America. In size, 21 inches long, and 33 in alar extent: bill, ivory-white, beautifully fluted above, and two and a half inches long; head-tuft, or crest, long and fine, of pure scarlet faced with black. Its body-color is glossy blue-black, but down its slender neck on each side, running from the crest to the back, a pure white stripe contrasts vividly with the scarlet and ebony. A mass of white runs across the back when the wings are closed, as in *M. erythrocephalus*, leaving the wing-tips and tail black. Its feet are ash-blue, its eyes amber-yellow. The female is like the male, save that she has a black crest instead of the scarlet. I can think of nothing in Nature more striking than the flash of color this bird gives to the dreary swamp-landscape, as it careers from tree to tree, or sits upon some high skeleton cypress-branch and plies its resounding blows. The species will probably be extinct within a few years.*—MAURICE THOMPSON, in *The Library Magazine*.

*Since writing the foregoing, I have made several excursions in search of the ivory-bill. Early in January, 1885, I killed a fine male specimen in a swamp near Bay St. Louis, Mississippi; but was prevented, by an accident, from preserving it or making a sketch it.

The Raptores of Michigan.

BY MORRIS GIBBS, M. D.

There are known in our State, either, as residents, transients from the north or south, winter residents and stragglers. Thirty species in this order; over twenty-five of these are well known; one, the European Buzzard, has only once been discovered, and several are only rarely recorded. There are also several species and races recorded by some catalogues, which the writer has considered hardly tenable in this list.

It may be of interest to those interested

in geographical distribution, to that state Michigan lies nearly within forty-one and two-thirds to forty-seven and one-half degrees north latitude, and eighty-two and one-half to ninety, west longitude, thus admitting of the visitation of several northern species unknown to more southern localities.

My own observations have been taken in sixteen counties, and cover the space embraced from the southern tier of counties to our northern boundary. In addition to personal notes the writer is somewhat indebted to much as a score of published lists, covering a period since 1839, many of which however, are somewhat misleading. The assistance of Messrs. B. F. Saxe and K. Wilhelm is thankfully acknowledged for valuable notes on the breeding habits of several species; I am also indebted to others.

CATHARTIDÆ.

The American Vultures.

Carthartes aura (LINN.). Turkey Vulture. A straggler from the south. It is not probably found nesting in the State; but to this I cannot attest. Twenty years ago this bird was unknown within our boundaries and is not embraced in any of the earlier lists of Michigan birds. The first specimen that I have knowledge of was taken in VanBuren county, in 1872, latitude 42° 20' north. Since then specimens have been occasionally taken, generally during July and August.

During the last two years the species has appeared almost common in localities and as many as seven were observed feasting from the carcass of of an unfortunate sheep. From the apparent familiarity of most of the specimens observed, it is probable that they came from those regions where, as scavengers, they are never molested. One bird was picked up alive, unwounded, and nearly all were easily approached and shot.

During the past summer, stock was well up in Turkey Buzzards, and many specimens were brought me for which fabulous prices were asked. The birds were deemed rare and rated accordingly; but two or three

exhibitions of that peculiar vulturine habit of disgorging the food, convinced me that I did not want a varied assortment of skins.

It is impossible to say whether this bird will become abundant in the future, but reasoning from the climate and various causes not inviting to this family of birds, I should say not. As yet, I have not heard of the appearance of this species beyond the 44° north latitude, but it may readily be conjectured that the tireless wings of this rapidly soaring ghoul may have taken it to our northern confines.

Birds have been taken in the months of April, May up to the 15th, July, August and September. Once two birds were taken in this county in July, which had only quitted home and mother during the past month, and the imperfect quills suggested that they were Michigan birds; a view that was to be disproved by the manner in which they scared away when liberated. Over the Indiana line, less than 100 miles from here, this species is plentiful, showing that a few miles may make a vast difference even with birds endowed with great endurance and expanse of wing.

FALCONIDÆ.

Vultures, Falcons, Hawks, Eagles etc.

Elaenoides forficatus (LINN). Swallow-tailed Kite. First mentioned by Hon. D. D. Hughes, in his valuable Mss. notes on Michigan birds, to which I have had success. W. H. Collins, the Detroit Ornithologist and Taxidermist, writes me: "One specimen taken seven miles from the city in the summer of 1878, now in the museum of the Detroit Scientific Association."

The Wild Turkey.

It is impossible for me to treat this subject properly, from lack of observation; but, perhaps, what little can be said may interest some.

This low rare game bird may still be found in some of the Eastern States, but he doesn't appear on every occasion. The writer caught a glimpse of one the past

fall, but was obliged to content himself with that.

The locality visited was in the Piedmont region of Va., about 35 miles from the city of Washington, D. C. Here quite large flocks are to be found in the 'old field' woods, which stretch away for miles, broken only by occasional deserted clearings. The timber is pine, broken by hard wood on knolls an along streams.

The natives of this region wage successful war on this noble game in early autumn from 'blinds' erected near favorite feeding grounds. The writer counted 20 of these structures in a day while hunting. Some few of the backwoodsmen still set log-traps: with what success I do not know.

Taken altogether, the "bird of Thanksgiving" has a hard time of it. From the time when his mother hides her speckled treasures from the mink and raccoon till he falls before the rifle or shot gun of the hunter, he is beset by snares and dangers of all kinds.

Wet weather thins the flocks of young birds, as does also the "varmints." When a little larger, he is lured to an early death by the call of the hunter from the blind, but should he survive the perils of two or three seasons, what gamier bird steps the woodland? Monarch of the flock, his call is obeyed as he treads the fragrant pine needles, always alert for hidden danger be it fox or hunter. At a near approach he rises and sails or runs as fast as his long legs will carry him to a safe retreat. Lucky the hunter whose quick and steady hand and eye can bring him down. It is not all who are thus gifted. Some must be content with grouse, quail, rabbits or squirrel until experience has taught its lesson.

The boundless woods and pure air give the hunter a pleasant sensation which is appreciated by those who have felt it, and a tremendous appetite is the usual result of a day's turkey hunting.

Come down from your snowy North and Western plains and hunt with us in the pine forests of the Old Dominion for *Meleagris gallopavo americana*.

A. B. F., Bennings, D. C.

Birds of Iowa.

The Academy of Natural Sciences, of Davenport, Iowa, has recently issued in volume V of its proceedings, an annotated catalogue of the birds of Iowa, by Charles R. Keyes and H. A. Williams, M. D. This is a welcome contribution to the *avi-fauna* of the Upper Mississippi valley; and those interested in ornithology, especially Iowa students, will be delighted to peruse the pages of this much needed publication. About 270 species of birds are enumerated, but as stated in the introductory the list makes no pretension to completeness. It is to be remembered, however, that no species are entered upon "authority;" every entry having an authentic material basis in the cabinets of the authors. The latter fact is indeed significant; and it would be well for all those contemplating the preparation of a work of this kind to bear this consideration in mind; that it is far more preferable and infinitely more valuable, to have a faunal catalogue of any region, however limited, based upon authentic specimens, rather than to include also species "said" to have been observed, even though the latter may, and all probability do, occur in that particular region. In the former instance, even though the list may not be as full as desirable, it is always important for reference; while in the latter case, all included "probable occurrences" tends to cast shadows of suspicion as to the accuracy of the whole enumeration. This important feature of having a material basis for the Iowa list, coupled with the then long familiarity with Iowa's *avi-fauna* and the conscientious accuracy of the authors, make the Annotated Catalogue of the Birds of Iowa especially valuable to working ornithologist.

The authors of the list have even gone further—thanks to their generosity and thoughtfulness for less favored workers—and issued reprints; 50 pages neatly inclosed in covers. Copies may be had on application to the senior author, whose address is Des Moines, Iowa.

Brewster's Linnet.

Editor OOLOGIST: Perhaps it will be of interest to your many readers to learn that on March 20th 1888, Jesse Craven, while collecting redpolls shot a Brewster Linnet, the same being in company with the redpolls, in the vicinity of the town of Sweden, near the line between Orleans and Monroe County, the specimen being a female answering in description correctly according to Ridgways Birds of N. A., which is as follows: above olive brownish, streaked with dusky, the rump tinged with pale sulphur yellow beneath whitish, tinged with dull buffy or pale fulvous on chest, the sides and lower tail coverts streaked with dusky, wings with two pale fulvous bands across coverts, quills and tail feathers narrowly edged with pale sulphur yellow, length 5.5 wing 2.75; tail, 2.25, these measurements are as nearly right as I could get them from the skin, as I did not see the bird before it was skinned, the skin is now in his collection. I believe the latest record of this bird to be in 1870, if any one has a later record we should like to hear from them through the Oologist.

F. C. L., Holley N. Y.

Am. Long-eared Owl.

This decidedly nocturnal bird is quite plentiful in this locality, where it arrives from the south about the middle of February. Its favorite haunts are dark swampy woods; especially tamarac swamps. Out of these retreats it is seldom if ever seen during the light of the day.

On account of its retiring habits, I have had but few opportunities to observe its movements. All I can say is that about the middle of April 5 to 7 eggs may be found averaging about 1.65 by 1.34 and as is the case of nearly all Owls' eggs, white. This species generally constructs its own nest; but a deserted squirrel's or woodmouse's is often occupied. Although its food consists principally of mice, squirrels etc., it makes sad havoc among the young warblers and other nestlings of the neighborhood.

J. C. W., Jr., Detroit, Mich.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and Items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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FRANK H. LATTIN,
ALBION, Orleans Co., N. Y.

Entered at the Post Office at Albion, N. Y., as second-class mail matter.

Jottings.

This is the last number of the *Oologist* that will be sent to 1888 subscribers unless they have or will renew their subscription.

We mail with this issue another copy of our Premium List; will our friends please hand it, if not wanted for their own use, to some one whom they think it might interest.

That '88 prize article competition will be decided in time to announce the result in next *Oologist* positively. The fortunate competitors will receive good interest for the delay.

"The Naturalists' Directory" as printed on the cover page we predict, will prove a great success. Wide-awake collectors will

not fail to have their names enrolled at once. In order that they will give the Directory a trial, we will, in March *Oologist* only, insert their names in any department, for only 5 cents, and 3 cents for each additional branch. If by the 1st of July next this investment has not paid back principal and interest at the rate of 500 per cent, your money will be refunded.

Many write us desiring to exchange specimens for a year's subscription to the *Oologist*. For 75 cents worth of first class specimens, birds' eggs preferred, we will send the *Oologist* for '89. No premium can be selected with this offer.

It must be distinctly understood that all subscriptions, received during '89 must begin with Jan. issue and in reply to many inquiries, we will say that after Feb. 1st we will send the *Oologist* free for '89 to any one purchasing anything we advertise to the amount of \$2.00 or over.

Should you desire any of Davie's eggs you must order at once.

The prices in our Sept. '88, *Bulletin* will hold good through '89.

Scarcely a mail comes in but what we receive one or more letters without signature. From Feb. 1st. until Aug. 1st., we do not receive less than *fifty* and sometimes *over one hundred* letters a mail. How we can fill orders without the names of the writers attached, we are at a loss to understand. We are now waiting for collectors from the following places to call us "frands" and like pet names in order that we may forward a package of goods ordered, which we cannot, owing to the fact that they did not sign their names to their order: New Haven, Vermont,..... \$1.53
Kalamazoo, Mich.,..... 1.35
West Chester, Pa.,..... 1 00

The last letter came last summer, and the writer must feel quite resigned to the fate of his dollar, for we have never heard any complaint.

Nearly all of the Bargain Lots mentioned in Jan. OOLOGIST remain unsold. At the prices named they are true *bargains*; if you want any speak quick.

Delays:—A few premiums we have been obliged to delay a few days before forwarding to our patrons, but the only delays of importance are to those desiring Premium No. 20, Foreign Eggs. We have been expecting an importation since Jan. 1st, but as yet it is not here; we can promise them by Feb. 15th, without fail. A few delays have occurred on premiums 132 and 133, but if our friends in ordering from this list will name substitutes, no delays will occur.

The "Critic" Criticised.

TO THE EDITOR OF THE OOLOGIST:

While looking over the January issue of your magazine, my attention was drawn to an article by Scelopax, criticising the statement made by me in the May OOLOGIST, of last year, to the effect that the eggs of the Bald Eagle were about equal to those of a goose in size.

I think that I am only doing myself justice in replying and giving my authority for that "emanation of an untruthful collector's brain" (as he calls it).

When I wrote the article in question I had never seen an eagle's egg, although I had frequently seen and attempted to shoot the birds; so, when I came to that part of my description, I was obliged to refer to some work on Ornithology, and as I had the good fortune to possess a copy of "The Birds of North America," by Theodore Jasper, A. M., M. D., which contains a description and colored engraving of over seven hundred species of our birds, I naturally supposed that I had good authority to back me up, and as Mr. Jasper stated in his description of this eagle, page one, second column, that the eggs were two in number, and about the size of those of a goose, I took it for a fact and unhesitatingly subscribed to it; but I must say that the geese in Michigan are either very large or possess capacities for laying extraordinarily

large eggs, if one of their productions is four times as large in cubic contents as the Bald Eagle's egg now in my collection, although it is only an average specimen.

As to the other statements made in my article, I will refer Scelopax to at least four reliable persons in this town, if he desires, to prove them true.

Although I am much younger at the business than Scelopax, yet I think that I have as much true love for the Science as he can possibly have and that I have just as deep an ambition to be truthful and reliable.

I would suggest to Scelopax that he take his own advice and be sure that he knows a collector is untruthful before he attempts to assert it.

H. C. COOK, Potsdam, N. Y.

TO MR. S.

In reply to your article in the January number of this paper, I would request you to refer to Davie's Key 2nd edition, also to Histories of Page and Lucas Counties and Geology of Iowa. Each of the above named gives a list of birds including the Carolina Parakeet. In saying this I do not deviate from the truth; I dislike to use hard words, but I am a little inclined to think that Mr. S. of Kalamazoo, Mich., is "off of his base." In saying that the Parakeet does not breed in Iowa, he contradicts some of the best authorities in the United States. Mr. Davie, in giving the habitat, thus says: Hab. Southern States, up the Mississippi Valley to the Missouri region, west to Arkansas and Indian Territory. Recently Kansas, Nebraska, Iowa etc.; formerly strayed to Ohio, Pennsylvania and New York; but of late has receded from the Carolinas; still abundant in Florida. Mr. S. should know that the real truth cannot be contradicted by mere negative.

Yours truly

T. S., Corning, Iowa.

ED. OOLOGIST:

Dear Sir: In regard to article in last No. of THE OOLOGIST in regard to the Carolina Parakeet, written by the gentleman of Kalamazoo, Mich.

I would like to ask if he is positive that the bird named does not nest in Iowa? Cones in his "Key to N. A. B." gives this bird from the southern states, up the Mississippi Valley to the Missouri regions, W. to Arkansas and the Indian Territory; recently Kansas, Nebraska, Iowa etc.

I can but indorse the advice given to young collectors, and contributors, yet I think he is a little too severe in his judgment of them. He should remember that we were all young once, and that discretion and accuracy only come with hard study and years of experience. I know there are articles written and circulated that contain a great deal of untruth, but I can not believe that the writers mean to prevaricate. I think that if the older and more experienced ornithologists would take hold with us, and give us a few articles now and then that it would help in a great measure to throw light on some of the obscure points wherein some few of us have erred.

Very truly yours,

L. O. Dart, Litchfield, Minn.

It seems to me that "Scolopax" himself made a misstatement in the Jan. OOLOGIST, when he said that an egg of the Bald Eagle was one-fourth the cubical dimensions of a Goose Egg. According to Davie the dimensions of an egg of the Bald Eagle is 3 in. by 2 in.; now according to "Scolopax's" statement would not his goose eggs be rather large?

W. E. Pratt Lake Forest, Ills

A Record than cannot be Beaten.

I noticed in the January OOLOGIST that a Horned Lark had been recorded by the editor, Jan. 3.

This record I can eclipse, as I was much surprised and pleased to record a Horned Lark on the morning of January 1st. I have also seen, this month (Jan.), a Tree Sparrow and a Northern Shrike.

I think the Horned Lark must be resident here, as I have observed it during every month of the year except December, and have found two nests, both in April, 1888.

NEIL F. POSSON, Medina, N. Y.

Albino Eggs of Bluebird.

In looking over the OOLOGIST for the past few years, I notice albino "eggs" of different species of birds occasionally spoken of, and thinking a mite from me on this subject would not come amiss, I give the following bit of my experience:

I have a set of pure white eggs of the Bluebird, taken from a small box nailed to the side of a corn-crib, May 6th, 1886, near Frankfort, Kan. The eggs, five in number, are of the average size and shape; the nest was like others I have seen, and the birds which I saw at a distance of only a few feet, were exactly like others of the same species, with the exception that the female had lost all of her tail feathers, probably the work of old Tabby.

This same pair (which I knew by the "tail mark" of the female) completed a set of four blue eggs in about a month from the time I took the white set, and in the latter part of July they again layed and brought forth young. This time three blue eggs.

From these few observations I feel positive that "albino eggs" are only freaks, and that one bird is as apt to lay them as another, and the only thing that strikes me as being peculiar, is this; that a Bluebird either lays an entirely white or an entirely blue set, whereas, other birds, when they *do* lay an "albino," it is only one or two while the rest of the set are of the normal color.

This will answer W. J. S., in Dec. OOLOGIST, at least as far as I am able.

D. B. R. Beattie, Kan.

'88. THE OOLOGIST. '88.

We have a few complete sets of the OOLOGIST for 1888 left, unbound. Price 50 cents. Order quick if you want a set.

Address, The OOLOGIST, Albion, N. Y.

Oliver Davie's Eggs.

—To Whom it may Concern.—

Davie to Hill.

Columbus, Ohio, Sept. 18, 1888.

Owing to the lack of time I have abandoned the idea of publishing a Natural History catalogue, and have transferred my entire business in this line to Mr. Geo. F. Hill, whom I can heartily recommend to the confidence of my patrons.

He has, likewise, in his possession my entire stock of eggs, numbering several hundred species, a great many of which are very rare. Any orders entrusted to him will receive prompt and careful attention.

OLIVER DAVIE.

Hill to Lattin.

Columbus, O., Jan. 16, 1889.

Having closed out my Natural History business, I have transferred my entire collection of birds' eggs to Mr. Frank H. Lattin of Albion, N. Y. The collection comprises, also the noted collection of Oliver Davie, which I had in my possession and numbers a great many rare species.

Mr. Lattin is a gentleman whom I can heartily recommend to the confidence of collectors who do not already know him, and any order entrusted to him will, I am sure, receive careful attention.

GEO. F. HILL.

A Valuable Present to the Largest Purchasers of Davie's Eggs.

Our stock of birds' eggs is the largest in this Country, and we are really very much overstocked. It was not because we needed them that we came in possession of the Davie Eggs, but as Mr. Hill had embarked in other business, and offered them to us on such liberal terms, we could not resist the temptation of writing him to send them along, but it was with an understanding that he should not ask us for his pay for 60 days, and *within that 60 DAYS we are going to sell the entire collection.* Of course we cannot do this without the help of our oological friends, and to secure their aid we have placed the prices at about one-half what specimens from the cabinets of so noted an oologist as Oliver Davie, had on lot to bring at an auction sale. We feel certain that every Oologist will order at once, at least a few sets or specimens from this noted collection, many of which were used in preparing Mr. D's great work.

\$45.00 WORTH OF EGGS IN SETS FREE! \$45.00!

We have concluded to show that we appreciate the efforts of our oological friends in assisting us in disposing of this collection by making the largest purchasers presents of the following valuable eggs:

To the person sending us the largest amount of money for Davie's Eggs, either sets, singles or nests on or before March 15th 1889, we will give a beautiful set of two eggs of the Bald Eagle.

To the second largest purchaser a set of one egg of the Bald Eagle.

To the third and fourth largest purchasers each a set of one egg of the Bridled Tern.

To the fifth and sixth largest purchasers each a set of 5 eggs of the Horned Grebe.

To the seventh to tenth largest purchasers each a set of one egg of the American Flamingo.

To the eleventh to fifteenth largest purchasers each a set of one egg of the Noddy Tern.

To the sixteenth to twenty-fifth largest purchasers each a set of one egg of the Sooty Tern.

To the twenty-sixth to the fortieth largest purchasers each a set of three eggs of the Least Tern.

To the forty-first to the sixtieth largest purchaser each a set of two eggs of the Mourning Dove.

Conditions.

The winner of the 1st prize must purchase at least \$10.00 worth of the Davie Eggs; 2nd to 4th prizes, at least \$5.00; 5th to 25th prizes, at least \$2.00 worth; 26th to 40th, at least \$1.00 worth; 41st to 60th, at least 50cts worth. To compete for these prizes only orders for the Davie Eggs will count. Orders can be mailed at any time between Feb. 1st and March 15th. Prizes will be awarded March 25th and announced in April Oologist. Should a person send a dozen or more orders between Feb. 1st and March 15th it will be the total sum of all these orders that will count in the competition. In case two or more persons should send the same amount the earliest order will rank first.

All eggs will be carefully packed in strong tin or wooden boxes, and sent by mail or express at our risk and on orders of \$1.00 or over expense. Make remittances in most convenient manner.

DISCOUNTS. Owing to our very low prices we can make only 5 per cent on an order of \$10.00 and 10 per cent on an order of \$25.00 over.

Address Plainly, **Frank H. Lattin.**

Albion, Orleans Co., N. Y.

EGGS IN SETS.

All prices are for the complete set as described.

Orders under 30 cts. must contain 5 cts. additional and under \$1.00 10 cts. additional, for postage and packing.

In all cases you must name additional sets that you can use as substitutes in case the ones ordered have been sold. In case this is not done we will take equally desirable sets from our stock to fill the order, or money will be refunded.

Abbreviations.

To condense the list, the following abbreviations have been used:

chchipped holes
dcdata complete
dncdata not complete
F. C. O. and feco.Franklin Co., Ohio
L. I.Long Island N. Y.
N.nest accompanies set
ndno data
O.Ohio
S. G. P. C. or sgpc.San Geronimo Pass, Cal.
sncset not complete
?questionable

1-2	Wood Thrush, 3, nd.....	\$.10
3-5	Wood Thrush, 4, coll. by Oliver Davie, Franklin Co., O., dnc.....	.25
6-7	Wood Thrush, 5, coll. O. Davie, Franklin Co., O., dnc.....	.30
8	Kusset-backed Thrush, 4, Cal. nd.....	.45
10-11	Catbird, 3, F C O ? nd.....	.06
12-13	Catbird, 4, F C O ? nd.....	.08
14-16	Brown Thrasher, 3, F C O ? nd.....	.09
17	Bluebird, 4, F C O ? nd.....	.08
18	Rocky Mt. Bluebird, 5, New Mexico dc.....	.60
19	Blue-gray Gnatcatcher, 4, S G P C dc.....	1.00
20	Blue-gray Gnatcatcher, 5, S G P C dnc.....	1.00
21	Black-crested Flycatcher, 2, S G P C dc.....	1.00
22	Black-crested Flycatcher, 2, ch S G P C dnc.....	.60
23	Black-crested Flycatcher, 2, second-class, S G P C dnc.....	.50
24-25	Blue-gray Gnatcatcher, N 3, S G P C nd.....	.65
26	Ground Tit, 2, snc S G P C dc.....	1.50
27	Tufted Titmouse, 4, Clinton Co., Ind dc.....	2.00
28	California Bush-tit, 5, S G P C dnc.....	.70
29	Cal. Bush-tit 5, snc S G P C dnc.....	.60
30	Cactus Wren, 3, S G P C dc.....	.50
31	Carolina wren, 5, coll. by O. Davie, F C O dnc.....	1.50
32	House Wren, 4, (1ch) Waterloo, Ind dc.....	.20
33	Swainson's Warbler, N 3, Ogechee Swamp, Ga., a fine and desirable set of this rare species.....	7.00
34	Swainson's Warbler, N 1, (original set con. 2), Chatham Co., Ga.....	3.50
35	Yellow Warbler, N 2, F C O dnc.....	.10
36	Yellow-breast-Chat, 3, O. Davie, F C O dnc.....	.50
37	Yellow-breast-Chat, 3, F C O ? nd.....	.25
38	Yellow-breast-Chat, 2, F C O ? nd.....	.18
39	Am. Redstart, 3, O. Davie, F C O dnc.....	.40
40	Am. Redstart, N 2, nd.....	.25
41	California (?) Shrike, 5, San Jose, Cal., dc.....	.50
42	California (?) Shrike, 5, S G P C dc.....	.50
43	Cedar Waxwing, 3, Lake Co., Ill. dc.....	.30
44	Purple Martin, 3, snc St. Law. Co., N. Y. dc.....	.45
45	White-bellied (Tree) Swallow, 4 snc, St. Law. Co. N. Y. dc, eggs dirty.....	.50
46	Summer Redbird, 3, Athens Co., O., dc.....	.75
47	House Finch, 4, Haywards Cal. dc.....	.25
48-49	House Finch, 5, S G P C dc.....	.25
50-51	House Finch, 4, S G P C dc.....	.20
54-55	Am. Goldfinch, N 4 nd.....	.25
56-57	Arkansas Goldfinch, N 4 S G P C dc.....	1.00
58	Lawrence's Goldfinch, 5 (3 ch) S G P C dnc.....	.75
59	Lawrence's Goldfinch, N 1 S G P C nd.....	.40
60	Grass Finch, 4 snc St. Law. Co. dc.....	.20
61	Sharp-tailed Finch, 2 snc, Mass. dc.....	.75
62	Field Sparrow, 2, F C O nd.....	.08
63	Field Sparrow, 3 F C O nd.....	.10
64	Field Sparrow, 3 snc F C O nd.....	.09
65	Song Sparrow, N 5, nd.....	.15
66	Cal. Song Sparrow, 3, Marlon Co., Cal. dc.....	.25
67	Cal. Song Sparrow, 3, near San Francisco dnc.....	.20
68	Heermann's Song Sparrow, 5, Riverside, Cal. dc.....	.60
69	Rusty Song Sparrow, 4 (1 ch) Oregon dnc.....	1.00
70	Spurred Towhee, 4, s g p c dc.....	1.00
71	Spurred Towhee, 4, s g p c dnc.....	.75
72-73	Canon Towhee, 4, s g p c dc.....	.60
74	Canon Towhee, 2 snc, s g p c dc.....	.20
75	Cardinal Grosbeak, 2, Sav. Ga. dc.....	.15
76	Blue Grosbeak, 2 snc, Forsythe Co., N. C. dc.....	.80
77	Nonpareil, 5, Sav. Ga. dc.....	.60
78	Black throated Bunting, 4 snc, col. by O. Davie, f c o dc.....	.50
79	Orchard Oriole, 3 snc, f c o dc.....	.18
80	Baltimore Oriole, 5, f c o dc.....	.35
81-83	Bullock's Oriole, 4, s g p c dc.....	.50
84-87	Bullock's Oriole, 5, s g p c dc.....	.60
88-89	Bullock's Oriole, 6, s g p c dc.....	.75
90	Purple Grackle, 3 snc, L. I. nd.....	.10
91-93	Purple Grackle, 4 snc, L. I. nd.....	.15
94-95	Purple Grackle, 5, L. I. nd.....	.20
96-97	Bronzed Grackle, 5, f c o dc.....	.25
98	Prairie Horned Lark, 5, Jasper Co., Ia dc.....	1.00
99	Kingbird, N 3, f c o dnc.....	.20
100	Arkansas Kingbird, 3 snc, sgpc dc.....	.20
101	Arkansas Kingbird, 4, s g p c dc.....	.40
102	Cassin's Kingbird, 4, Riverside, Cal. dc.....	1.50
103	Ash-throated Flycatcher, 5, s g p c dc.....	1.00
104	W. Yellow-bellied Flycatcher, N 3, Santa Clara Co., Cal. dc a beautiful set.....	1.00
105-107	Trall's Flycatcher, 3, feco nd.....	.35
108	Trall's Flycatcher, 4 (1ch) feco nd.....	.45
109-112	Trall's Flycatcher, N 2, feco dnc.....	.35
113-114	Anna's Hummingbird, N 2, sgpc dc.....	1.50
115	Chuck-wills-widow, 2, Tampa Fla dc.....	3.00
116	Western (?) Night-hawk, 2 Beattie Co. Kan. dc.....	.80
117	Downy Woodpecker, 4, Green Co., O. dc.....	.75
118	Red-bellied Woodpecker, 5 Lee Co. Tex. dc.....	1.00
119	Red-headed Woodpecker, 4, col. O. Davie feco dc.....	.15

120 Red-headed Woodpecker, 3, fco nd.....	29	180 Sora Rail, 4 Comal Co., Tex. dc.....	40
121 Red-headed Woodpecker, 4, nd.....	30	181 Sora Rail, 13snc, Hen. Co., Minn. dc.....	1.25
122 Red-headed Woodpecker, 5, fco nd.....	49	182 Whooping Crane, 2, (2 small holes in side) Iowa dc.....	2.00
123 Flicker, 4, O. nd.....	20	183 Am. Flamingo, 1, Bahamas dc.....	75
124 Red-shafted Flicker, 4, sgpc nd.....	40	184 Mallard, 10, Lapland dc.....	1.50
125 Red-shafted Flicker, 5, sgpc nd.....	50	185 Pintail, 7 (2ch), Lapland dc.....	2 00
126 Belted Kingfisher, 5, snc L. I. nd.....	80	186 Widgeon, 7, Iceland dc.....	1.50
127 Road-runner, 5, sgpc dc.....	1.00	187 Shoveller, 8, Russia dc.....	2.00
128 Yellow-billed Cuckoo, 3, fco nd.....	35	188 Blue-winged Teal, 11 (1ch), Devil's Lake, Dak. dc.....	3.00
129 Am. Barn Owl, 4 snc, S. Paula, Cal. dc.....	1.00	189 Am. Golden-eye, 7, Russia dc.....	5.00
130 Western Horned Owl, 2, Poweshiek Co., Ia. dc.....	3.00	190 Am. Golden-eye, 5 (1ch), Iceland dc.....	4.00
131 Am. Hawk Owl, 7 (1ch) Labrador, dc. The data for this set gives Labrador as the locality, but as it comes through a German dealer, we think it can be set down as the European species.....	7.00	191 Elder, 4, Finland, dc.....	1.25
132 Duck Hawk, 2 (1mp) snc, Greenland dc (obtained through German dealer).....	3.00	192 Am. Sheldrake, 10, Norway dc.....	5.00
133 Western Red-tail Hawk, 2, Cala? nd handsome specimens.....	1.50	193-194 Am. white Pelican, 1, Gt. Salt Lake dc.....	5.00
134 Red-tail Hawk, 1snc, Mid. Co. Ct. dc.....	75	195 Brown Pelican, 3, Tampa, Fla. dc.....	75
135 Swainson's Hawk, 2, Los Angeles, Cala. dc.....	1.50	196 Fla. Cormorant, 2, snc, Tampa dc.....	5.00
136 Bald Eagle, 1, Cape Sable, Fla. dc.....	4.00	197 Brandt's Cormorant, 4, Farralone Is. dnc 1.25	
137 Bald Eagle, 2, Cape Sable, Fla. dc.....	7.50	198 Am. Anhinga, 4, Tampa, Fla. dc.....	1.00
138-139 Mourning Dove, 2, San Diego, Cal. dc.....	.05	199 Gaunt, 1, Bird Rocks dc.....	25
140 Ground Dove, 2, Chatham Co., Ga. dc.....	50	200 Glaucous Gull, 2, Greenland dc.....	1.50
141 Ground Dove, 2, Ga. nd.....	40	201 Gt. Black-backed Gull, 2, Sweden dc.....	75
142-143 Chachalaca, 2, Starr Co. Tex. dc.....	3.00	202 Western Gull, 3, Farralone Is. dc.....	1.00
144 Ruffed Grouse, 12 (1mp) snc, Newton Ia. dc.....	1.25	203 Herring Gull, 2snc, Eng. dc.....	50
145 Oregon Ruffed Grouse, 6, Coos Co., Oregon dc.....	2.50	204 Am. Herring Gull, 2, St. Law. Co., N. Y. nd.....	35
146 Texan Quail, 14, Lee Co., Tex. dc.....	1.50	205 Ring-billed Gull, 3 (1erk) Benson Co., Dak. dc.....	75
147 Chestnut-bellied Scaled Quail, 12, Tamaulipa, Mexico dc.....	6.00	206-207 Ring-billed Gull, 3, Benson Co., Dak. dc.....	90
148 Wurdemaun's Heron, 3, Cape Sable, Fla. dc.....	4.00	208 Franklin's Gull, 3, Heron Lake, Minn. dc.....	2.25
149 American Egret, 4, Tampa, Fla. dnc.....	1.00	209 Gull-billed Tern, 3snc, Hog Is., Va. dc.....	60
150 Snowy Heron, 3snc, Tallahassee, Fla. dc.....	45	210-215 Common Tern, 2, L. I. N. Y. dc.....	10
151 Snowy Heron, 4, Tampa, Fla. dc.....	60	216-219 Fulmar Petrel, 1, Iceland dc.....	50
152 Reddish Egret, 3snc, Tampa, Fla. dc.....	85	220 Leach's Petrel, 1, Grand Menan dc.....	2.00
153 Louisiana Heron, 3, Jeff. Co., Tex. dc.....	30	221 Western Grebe, 4, Devil's Lake, Dak. dc 1.25	
154 Louisiana Heron, 4, Tampa, Fla. dc.....	40	222-223 Western Grebe, 5, Devil's Lake, Dak. dc.....	2 25
155 Little Blue Heron, 4, Jeff. Co., Tex. dc.....	40	224 Am. Eared Grebe, 4, Cal. dnc.....	1.00
156 Little Blue Heron, 4, Tampa Fla. dc.....	40	225 Black-throated Diver, 1snc, Lapland dc.....	1.00
157 Green Heron, 3, Tybee, Is. dc.....	30	226 Razor-billed Auk, 1, Finland dc.....	25
158 Green Heron, 4snc, L. I. nd.....	30	227-229 Tufted Puffin, 1, Farralone Is. dc.....	1.25
159-162 Black-crowned Night Heron, 3, L. I. nd.....	30	230 Cassin's Auk, 1, Farralone Is. dc.....	3.00
163-165 Bc. Night Heron, 3snc, L. I. nd.....	25	231 Black Guillemot, 2, Grand Menan dnc.....	40
166 Bc. Night Heron, 4snc, L. I. nd.....	35		
167-168 White-crowned Night Heron, 4, Jeff Co., Tex. dc.....	1.25		
169 Glossy Ibis, 4, Russia dc.....	1.00		
170 Golden Plover, 4, Iceland dc.....	1.50		
171 Golden Plover, 4 (1ch), Scotland dc.....	1.25		
172 Ringed Plover, 4, Iceland dc.....	60		
173 Ringed Plover, 3, England dc.....	50		
174 Piping Plover, 4, So. Car? nd.....	1.50		
175 European Woodcock, 4, Sweden dc.....	5.00		
176 English Snipe, 3snc, Eng. dc.....	75		
177 Willet, 4, Beau, Co., S. C. dc.....	1.25		
178 Long-billed Curlew, 4, England dc.....	2.00		
179 Red-breasted Rail, 9, Sav., Ga. dc.....	1.25		

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3 Russet-backed Thrush.....	.69
4 11 Robin.....	.02
31 5 Mockingbird.....	.05

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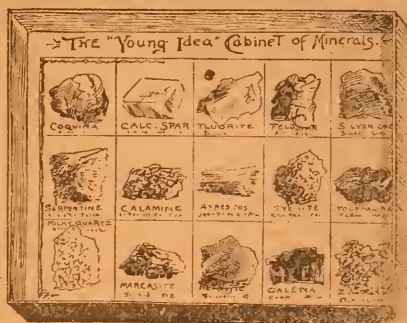
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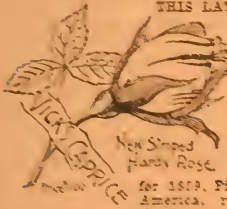
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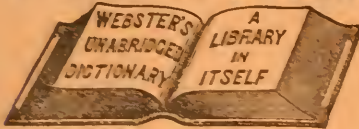
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OÖLOGIST.

Monthly.

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Vol. VI,

ALBION, N. Y., MARCH, 1889.

No. 3

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

WANTED—In large quantities, the following Fossils: Belemnites. Fossil Fish, Tribolites (*Calyptomena senaria*), 1 entremites (*pyriferus or godoni*), and Shark teeth. Address stating lowest cash or exchange prices. FRANK H. LATTIN, Albion, N. Y.

WANTED.—To exchange foreign coins for first-class birds' eggs. N. BRADT, Eagle Harbor, Orleans Co., N. Y.

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25 GARNETS for every perfect Indian arrowhead, or 35 for every spearhead and 5 for every shark's tooth. FRED S. WHITTAKER, Chestnut Hill, Phila., Pa.

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Davie to Hill.

Columbus, Ohio, Sept. 18. 1888.

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He has, likewise, in his possession my entire stock of eggs, numbering several hundred species, a great many of which are very rare. Any orders entrusted to him will receive prompt and careful attention.

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Hill to Lattin.

Columbus, O., Jan. 16, 1889.

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To the fifth and sixth largest purchasers each a set of 5 eggs of the Horned Grebe.

To the seventh to tenth largest purchasers each a set of one egg of the American Flamingo.

To the eleventh to fiftieth largest purchasers each a set of one egg of the Noddy Tern.

To the sixteenth to twenty-fifth largest purchasers each a set of one egg of the Sooty Tern.

To the twenty-sixth to the fortieth largest purchasers each a set of three eggs of the Least Tern.

To the forty-first to the sixtieth largest purchaser each a set of two eggs of the Mourning Dove.

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The winner of the 1st prize must purchase at least \$10.00 worth of the Davie Eggs; 2nd to 4th prizes, at least \$5.00 worth; 5th to 25th prizes, at least \$2.00 worth; 26th to 40th, at least \$1.00 worth; 41st to 60th, at least 50cts worth. To compete for these prizes only orders for the Davie Eggs will count. Orders can be mailed at any time between Feb. 1st and March 15th. Prizes will be awarded March 25th and announced in April Oologist. Should a person send a dozen or more orders between Feb. 1st and March 15th it will be the total sum of all these orders that will count in the competition. In case two or more persons should send the same amount the earliest order will rank first.

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Abbreviations.

To condense the list, the following abbreviations have been used:

ch.....chipped holes
dne.....data complete
dnc.....data not complete
F. C. O. and fco.....Franklin Co., Ohio
L. I.....Long Island, N. Y.
N.....nest accompanies set
nd.....no data
O.....Ohio
S. G. P. C. or sgpc.....San Geronimo Pass, Cal.
snc.....set not complete
?.....questionable

1-2	Wood Thrush, 3, nd.....	\$.10
3-5	Wood Thrush, 4, coll. by Oliver Davie, Franklin Co., O., dnc.....	.25
6-7	Wood Thrush, 5, coll. O. Davie, Franklin Co., O., dnc.....	.30
8	Russet-backed Thrush, 4, Cal. nd.....	.45
10-11	Catbird, 3, F C O ? nd.....	.06
12-13	Catbird, 4, F C O ? nd.....	.08
14-16	Brown Thrasher, 3, F C O ? nd.....	.09
18	Rocky Mt. Bluebird, 5, New Mexico dc.....	.60
19	Blue-gray Gnatcatcher, 4, S G P C dc.....	1.00
20	Blue-gray Gnatcatcher, 5, S G P C dnc.....	1.00
21	Black-crested Flycatcher, 2, S G P C dc.....	1.00
26	Ground Tit, 2, snc S G P C dc.....	1.50
27	Tufted Titmouse, 4, Clinton Co., Ind dc.....	2.00
28	California Bush-tit, 5, S G P C dnc.....	.70
30	Cactus Wren, 3, S G P C dc.....	.50
31	Carolina wren, 5, coll. by O. Davie, F C O dnc.....	1.50
32	House Wren, 4, (1ch) Waterloo, Ind dnc.....	.20
33	Swainson's Warbler, N 3, Ogeechee Swamp, Ga., a fine and desirable set of this rare species.....	7.00
36	Yellow-breast-Chat, 3, O. Davie, F C O dnc.....	.50
37	Yellow-breast-Chat, 3, F C O ? nd.....	.25
38	Yellow-breast-Chat, 2, F C O ? nd.....	.18
39	Am. Redstart, 3, O. Davie, F C O dnc.....	.40
40	Am. Redstart, N 2, nd.....	.25
41	California (?) Shrike, 5, San Jose, Cal., dc.....	.50
42	California (?) Shrike, 5, S G P C dc.....	.50
43	Cedar Waxwing, 3, Lake Co., Ill. dc.....	.30
44	Purple Martin, 3, snc St. Law. Co., N. Y., dc.....	.45
45	White-bellied (Tree) Swallow, 4 snc, St. Law. Co. N. Y., dc, eggs dirty.....	.50
46	Summer Redbird, 3, Athens Co. O., dc.....	.75
47	House Finch, 4, Haywards Cal. dc.....	.25
50-51	House Finch, 4, S G P C dc.....	.20
54-55	Am. Goldfinch, N 4 nd.....	.25

56-57	Arkansas Goldfinch, N 4 S G P C dc.....	1.00
58	Lawrence's Goldfinch, 5 (3 ch) S G P C dnc.....	.75
59	Lawrence's Goldfinch, N 1 S G P C nd.....	.40
60	Grass Finch, 4 snc St. Law. Co. dc.....	.20
61	Sharp-tailed Finch, 2 snc, Mass. dc.....	.75
62	Field Sparrow, 2, F C O nd.....	.08
63	Field Sparrow, 3 F C O nd.....	.10
64	Field Sparrow, 3 snc F C O nd.....	.09
65	Song Sparrow, N 5, nd.....	.15
66	Cal. Song Sparrow, 3, Marion Co., Cal. dc.....	.25
67	Cal. Song Sparrow, 3, near San Francisco dnc.....	.20
68	Heermann's Song Sparrow, 5, Riverside, Cal. dc.....	.60
69	Rusty Song Sparrow, 4 (1 ch) Oregon dnc.....	1.00
70	Spurred Towhee, 4, s g p c dc.....	1.00
72	Canon Towhee, 4, s g p c dc.....	.60
75	Cardinal Grosbeak, 2, Sav. Ga. dc.....	.15
76	Blue Grosbeak, 2 snc, Forsythe Co. N. C. dc.....	.80
77	Nonpareil, 5, Sav. Ga. dc.....	.60
79	Orchard Oriole, 3 snc, f c o dc.....	.18
80	Baltimore Oriole, 5, f c o dc.....	.35
81-83	Bullock's Oriole, 4, s g p c dc.....	.50
84-87	Bullock's Oriole, 5, s g p c dc.....	.60
88	Bullock's Oriole, 6, (6chs) g p c dc.....	.65
90	Purple Grackle, 3 snc, L. I. nd.....	.10
91-93	Purple Grackle, 4 snc, L. I. nd.....	.15
94-95	Purple Grackle, 5, L. I. nd.....	.20
96-97	Bronzed Grackle, 5, f c o dc.....	.25
98	Prairie Horned Lark, 5, Jasper Co., Ia dc.....	1.00
99	Kingbird, N 3, f c o dnc.....	.20
100	Arkansas Kingbird, 3snc, sgpc dc.....	.20
101	Arkansas Kingbird, 4, s g p c dc.....	.40
102	Cassin's Kingbird, 4, Riverside, Cal. dc.....	1.50
103	Ash-throated Flycatcher, 5, s g p c dc.....	1.00
104	W. Yellow-bellied Flycatcher, N 3, Santa Clara Co., Cal. dc a beautiful set.....	1.00
105-107	Trail's Flycatcher, 3, fco nd.....	.35
108	Trail's Flycatcher, 4 (1ch) fco nd.....	.45
115	Chuck-wills-widow, 2, Tampa Fla dc.....	3.00
116	Western (?) Night-hawk, 2 Beattie Co. Kan. dc.....	.80
117	Downy Woodpecker, 4, Green Co. O. dc.....	.75
118	Red-bellied Woodpecker, 5 Lee Co. Tex. dc.....	1.00
119	Red-headed Woodpecker, 4, col. O. Davie fco dc.....	.75
120	Red-headed Woodpecker, 3, fco nd.....	.20
121	Red-headed Woodpecker, 4, nd.....	.30
122	Red-headed Woodpecker, 5, fco nd.....	.40
123	Flicker, 4, O. nd.....	.20
124	Red-shafted Flicker, 4, sgpc nd.....	.40
125	Red-shafted Flicker, 5, sgpc nd.....	.50
126	Belted Kingfisher, 4, snc L. I. nd.....	.65
127	Road-runner, 5, sgpc dc.....	1.00
128	Yellow-billed Cuckoo, 3, fco nd.....	.35
130	Western Horned Owl, 2, Poweshiek Co. Ia. dc.....	3.00
131	Am. Hawk Owl, 7 (1ch) Labrador, dc. The data for this set gives Labrador as the locality, but as it comes through a German dealer,	

we think it can be set down as the European species.....7.00		203 Herring Gull, 2snc, Eng. dc.....50
133 Western Red-tail Hawk, 2, Cala? nd hand-some specimens.....1.50		204 Am. Herring Gull, 2, St. Law. Co., N. Y. nd.....35
134 Red-tail Hawk, 1snc, Md. Co. Ct. dc.....75		206-207 Ring-billed Gull, 3, Benson Co., Dak. dc.....90
135 Swainson's Hawk, 2, Los Angeles, Cala dc.....1.50		208 Franklin's Gull, 3, Heron Lake, Minn. dc.....25
136 Bald Eagle, 1, Cape Sable, Fla. dc.....4.00		209 Gull-billed Tern, 3snc, Hog Is., Va. dc.....60
137 Bald Eagle, 2, Cape Sable, Fla. dc.....7.50		210-212 Common Tern, 2, L. I. N. Y. dc.....10
138-139 Mourning Dove, 2, San Diego, Cal. dc......08		216-218 Fulmar Petrel, 1, Iceland dc.....50
140 Ground Dove, 2, Chatham Co., Ga. dc.....50		221 Western Grebe, 4, Devil's Lake, Dak. dc 2.00
141 Ground Dove, 2, Ga. nd.....40		222-223 Western Grebe, 5, Devil's Lake, Dak. dc.....25
142-143 Chachalaca, 2, Starr Co. Tex. dc.....3.00		224 Am. Eared Grebe, 4, Cal. dnc.....1.00
144 Ruffed Grouse, 12 (limp) snc, Newton Ia. dc.....1.25		225 Black-throated Diver, 1snc, Lapland dc.....1.00
145 Oregon Ruffed Grouse, 6, Coos Co., Oregon dc.....2.50		227-229 Tufted Puffin, 1, Farrallone Is. dc.....1.25
146 Texan Quail, 14, Lee Co., Tex. dc.....1.50		230 Cassin's Auk, 1, Farrallone Is. dc.....3.00
148 Wurdemann's Heron, 3, Cape Sable, Fla. dc.....4.00		231 Black Guillemot, 2, Grand Menan dnc.....40
149 American Egret, 4, Tampa, Fla. dnc.....1.00		
150 Snowy Heron, 3snc, Tallahassee, Fla. dc.....45		
151 Snowy Heron, 4, Tampa, Fla. dc.....60		
152 Reddish Egret, 3snc, Tampa, Fla. dc.....85		
153 Louisiana Heron, 3, Jeff. Co., Tex. dc.....30		
154 Louisiana Heron, 4, Tampa, Fla. dc.....40		
155 Little Blue Heron, 4, Jeff. Co., Tex. dc.....40		
156 Little Blue Heron, 4, Tampa Fla. dc.....40		
157 Green Heron, 3, Tybee, Is. dc.....30		
158 Green Heron, 4snc, L. I. nd.....30		
159-162 Black-crowned Night Heron, 3, L. I. nd.....30		
163-165 Bc. Night Heron, 3snc, L. I. nd.....25		
166 Bc. Night Heron, 4snc, L. I. nd.....35		
167-168 White-crowned Night Heron, 4, Jeff. Co., Tex. dc.....1.25		
169 Glossy Ibis, 4, Russia dc.....1.00		
170 Golden Plover, 4, Iceland dc.....1.50		
171 Golden Plover, 4 (1ch), Scotland dc.....1.25		
172 Ringed Plover, 4, Iceland dc.....60		
173 Ringed Plover, 3, England dc.....50		
175 European Woodcock, 4, Sweden dc.....5.00		
176 English Snipe, 3snc, Eng. dc.....75		
177 Willet, 4, Beau, Co., S. C. dc.....1.25		
178 Long-billed Curlew, 4, England dc.....2.00		
179 Red-breasted Rail, 9, Sav., Ga. dc.....1.25		
180 Sora Rail, 4, Comal Co., Tex. dc.....40		
181 Sora Rail, 13snc, Henn. Co., Minn. dc.....1.25		
182 Whooping Crane, 2, (2 small holes in side) Iowa dc.....2.00		
184 Mallard, 10, Lapland dc.....1.50		
185 Pintail, 7 (2ch), Lapland dc.....2.00		
186 Widgeon, 7, Iceland dc.....1.50		
187 Shoveller, 8, Russia dc.....2.00		
188 Blue-winged Teal, 11 (1ch), Devil's Lake, Dak. dc.....3.00		
189 Am. Golden-eye, 7, Russia dc.....5.00		
191 Elder, 4, Finland, dc.....1.25		
192 Am. Sheldrake, 10, Norway dc.....500		
195 Brown Pelican, 3, Tampa, Fla. dc.....75		
196 Fla. Cormorant, 2, snc, Tampa dc.....50		
197 Brandt's Cormorant, 4, Farrallone Is. dnc 1.25		
200 Glaucous Gull, 2, Greenland dc.....1.50		
201 Gt. Black-backed Gull, 2, Sweden dc.....75		
202 Western Gull, 3, Farrallone Is. dc.....1.00		

Single Eggs.

The figures in the first column at the left, give the number of 1st-class single eggs in the collection. The second column, the number of 2d-class ones.

The prices quoted are for a single 1st class specimen of the species named.

Where we have 2d-class specimens, we will sell them for *one-half* these prices.

Orders under 30c must contain 5c. and under \$1.00, 10c. additional for postage and packing. Over \$1.00 will be sent prepaid.

Always name additional specimens that can be used as substitutes in case we should be out of those most desired at the time of receiving order. In case this is not done we will take equally desirable specimens from our stock to fill the order or will return your money.

15	Wood Thrush.....	04
4 11	Robin.....	02
20	Mockingbird.....	05
7 3	Catbird.....	02
12 3	Brown Thrasher.....	03
4	Cal. Bluebird.....	10
1 1	Phainopepla.....	40
10 5	Blue-gray Gnatcatcher.....	18
4	Chickadee.....	08
1	Least Tit.....	15
5	Cactus Wren.....	12
1	Carolina Wren.....	20
2	Long-billed Marsh Wren.....	04
4	Prothonotary Warbler.....	35
1	Golden-winged Warbler.....	50
8 2	Parula Warbler.....	18
2	Oven Bird.....	12
10 7	Yellow-breast Chat.....	08
8	Redstart.....	10
5	W. Warbling Vireo.....	15
1	Blue-headed Vireo.....	40
1 1	White-eyed Vireo.....	12
3	Bell's Vireo.....	12
4	White-rumped Shrike.....	07
8	Cliff Swallow.....	02
10	Barn Swallow.....	02
5	Scarlet Tanager.....	18
9 3	House Finch.....	05
5 6	Am. Goldfinch.....	06
1 2	Ark. Goldfinch.....	10
2 1	Gambel's White-crowned Sparrow.....	18
7 3	Chipping Sparrow.....	02
4 3	Field Sparrow.....	03
12 6	Song Sparrow.....	02
3	Chewink.....	08
3	Spurred Towhee.....	20
4	Canon Towhee.....	20
9	Cal. Brown Towhee.....	08
8 4	Cardinal Grosbeak.....	04

12	3	Indigo Bunting.....	.07
16	6	Cowbird.....	.02
20	4	Red-winged Blackbird.....	.02
4		Meadow Lark.....	.10
8		W. Meadow Lark.....	.10
3		Orchard Oriole.....	.05
5		Baltimore Oriole.....	.05
5		Bullock's Oriole.....	.10
10		Purple Grackle.....	.04
11		Florida Grackle.....	.16
10		Bronzed Grackle.....	.04
15	6	Crow.....	.05
5		Florida Crow.....	.20
1		Black-billed Magpie.....	.20
4		Blue Jay.....	.04
2		Cal. Jay.....	.18
6	4	Kingbird.....	.03
5		Ark. Kingbird.....	.06
1		Ariz. Crested Flycatcher.....	.60
2		Great-Crested Flycatcher.....	.12
4	6	Pewee.....	.02
1		Wood Pewee.....	.05
8	4	Trall's Flycatcher.....	.12
10		Red-headed Woodpecker.....	.07
45	3	Flicker.....	.03
6		Red-shafted Flicker.....	.10
4	3	Belted Kingfisher.....	.16
1		Road-runner.....	.18
2		Yellow-billed Cuckoo.....	.10
2		Cal. Screech Owl.....	.50
3		Western Great Horned Owl.....	1.50
1	1	Duck Hawk.....	2.00
1		Sparrow Hawk.....	.30
15	1	Fish Hawk: Osprey.....	.40
1		Cooper's Hawk.....	.20
2		Red-shouldered Hawk.....	.40
2		Swainson's Hawk.....	.75
4		Turkey Buzzard.....	.40
15		Mourning Dove.....	.02
36		California Quail.....	.10
6		Great Blue Heron.....	.20
7		Louisiana Heron.....	.08
42		Black-crowned Night Heron.....	.10
1		White-crowned Night Heron.....	.30
2		Killdeer.....	.15
1		Wilson's Plover.....	.20
2		English Snipe.....	.20
9		Clapper Rail.....	.06
1		Purple Gallinule.....	.25
5		Florida Gallinule.....	.08
5		Mallard.....	.15
2		Florida Cormorant.....	.20
95	7	Common Tern.....	.04
5	1	Roseate Tern.....	.08
1		Black Tern.....	.10
1	1	Red-throated Diver.....	.50
3		Puffin.....	.30
1		Pigeon Guillemot.....	.40

Birds' Nests.

In the Davis collection were the following nests, most of which are very fine. At the prices quoted they are shipped at purchaser's expense; as they are very light a dozen or more can be sent almost anywhere east of the Mississippi River at from 25 to 50c.

If ordered by mail, add 5c additional for postage and packing on each nest, except Red-winged Blackbird for which you must add 10c and Crow Blackbird 20c; all others 5c.

The number at right tells the number of nests we have in stock; and the price is per single nest. Order quick.

Always name substitutes:

2	Phainopepla.....	\$.15
2	Parula Warbler.....	.20
2	Yellow Warbler.....	.10
1	American Redstart.....	.10
1	Warbling Vireo.....	.15
1	Red-eyed Vireo.....	.10

1	Summer Redbird.....	.20
2	Am. Goldfinch.....	5 to 10
2	Arizona Goldfinch.....	.12
1	Yellow-winged Sparrow.....	.15
1	Field Sparrow.....	.05
1	Song Sparrow.....	.05
1	White-eyed Towhee.....	.25
1	Blue Grosbeak.....	.20
3	Indigo Bunting.....	.15
1	Nonpareil.....	.20
3	Red-winged Blackbird.....	.10
2	Orchard Oriole.....	.20
1	Crow Blackbird.....	.15
1	Scissor-tailed Flycatcher.....	.20
1	Pewee.....	.05
1	Wood Pewee.....	.10
4	Trall's Flycatcher.....	.10

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THE OOLOGIST.

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No. 3

Brief Directions for Making a Bird or Mammal Skin.

BY ERNEST E. THOMPSON, TORONTO.

MATERIALS. 1, a sharp knife; 2, a pair of stout scissors; 3, needles and thread; 4, a pair of forceps; 5, a supply of fine hard wood sawdust or else corn-meal; 6, arsenical soap or else pure dry arsenic; 7, cotton-wool for small specimens, and tow, oakum or fine dry grass for large ones (never use hair, feathers or animal substance); 8, benzine; 9, plaster-of-paris; 10, powdered alum; 11, labels; 12, three or four sizes of wire.

CLEANING. The benzine is used with plaster of paris mixed to a creamy consistency, to remove grease from the feathers or fur; it should be well rubbed into the affected place and then allowed to dry, after which the plaster may be shaken off.

Blood. may be removed with a sponge and tepid water, drying the feathers or fur at first with blotting paper and then with sawdust, shaking and working them till dry.

MEASUREMENTS. Many of the best collectors make no measurement from the fresh bird. Others take the length, that is the distance between the tip of the beak and the end of the longest tail feather, the body being moderately stretched; also the extent which is the distance from tip to tip of the outstretched wings. The length is always a desirable item.

A MAMMAL should always be measured when fresh, giving first the length which is the distance from the tip of the tail bone to the tip of the nose, moderately stretched; and length of tail, for which the tail is raised at right angles to the back, one end of the rule or dividers being firmly placed on the animal's back at the root of tail, the other at the tip. The exact weight of a mammal is also of value.

SKINNING A BIRD. A bird of medium

size, as a Robin, is best to begin on, and supposing the specimen to have been cleaned of blood and grease, as above directed and to have been measured, begin by plugging the throat with cotton wool, then slit the skin along the breast bone to the vent, taking care to cut no more than the skin; separate the skin from the body toward the leg, always sprinkling the flesh with sawdust as fast as it is exposed; when each leg is exposed, cut it off near the body, leaving it still attached to the skin; in like manner having pushed the skin from the body about the tail, cut through the tail bones so that the part in which the tail feathers grow shall be separated from the body and attached to the skin; skin up the back till the wings are reached, cut these off next the body and push the skin up over the neck, turning it inside out as it is taken off; shortly after the head is reached the ears will be found to pin the skin to the skull, a little practice will show how easily these may be drawn out with the dry tip of the thumb; presently the eyes are reached and these must be carefully cut clear of the eyelids and the skinning carried on to the base of the bill (in ducks, divers, woodpeckers and some others the head is too large to come through the skin of the neck, so that it is best to cut the neck off as soon as the base of the skull is reached, then after pulling the head out straight, cut a slit down the nape and skin the head through it, carefully stitching it up afterwards); now with four decided cuts of the scissors remove the lower half of the brain pan and the back half of the palate; this frees the body and also renders easy the removal of the brains. Care must be taken not to destroy the jaw-bones or their hinges; remove the eyes, the tongue and the flesh of the head; next press back the skin on each wing so as to expose two joints; remove the flesh and fat; treat the legs in the same way, skinning them to the commencement of the scaly

portion; clear the skin and tailbone of flesh and fat.

Now paint every interior part with arsenical soap or else sprinkle with powdered arsenic; draw the legs and wings back into their places; put a cotton plug into each eye-socket; make a piece of cotton into a long roll about the size of the bird's neck, force one end tight into the skull and let the rest hang; now proceed gently to work the skull back through the skin to its natural position, taking care that neck the is not pulled out too long; place the wings in position and fill the body neatly with cotton and sew it up; put a little cotton into the throat through the beak and tie the beak shut with a thread through the nostrils; cross the legs, tie the labels to them, and after preserving and arranging the feathers with a needle, adjusting the eyes, wings etc., lay the skin away to dry in either a bed of cotton or a paper cylinder.

Many bird-skimmers do not put anything in the skull till after it is returned to its place, but thrust the cotton up afterwards with the pliers. Others again use a stick of the size of a match for the neck, first wrapping it with cotton wool; a stick of suitable size is necessary in the necks of all birds larger than a Robin, but in smaller birds it is unnecessary and difficult to manage.

Many operators tie the wing bones together and wrap both leg and wing bones with cotton before replacing, but these also are unnecessary in small birds.

A specimen is improved by having the tail half spread. Remember always that a dead bird is the perfect model for a skin.

MAMMAL SKIN. In general a small mammal should be cleaned and skinned in the same way as a bird, but the skull should be completely and carefully removed; the tail bone should be drawn out of the tail; poison every part with dry arsenic or else with a mixture of of four parts of arsenic to one of powdered alum, working it well into the tail and feet; put a wire in the tail, of as large a size as will enter the tip; and having filled and sewn up the body

as in birds, and sewn up the mouth, lay the animal on a board, draw the forefeet forward, soles down, close to the head and even with each other, use a pin if they will not remain so without; similarly draw the hind feet back, soles up; arrange the fur, the ears and tail neatly and set it away to dry.

The skull should be partly cleaned, but with care so that no bones are broken; it should then, after having been dried, either be tied to one foreleg, or else marked with a number corresponding to that on the label.

Muskrats, beavers and others require the tail to be cut open and skinned for the basal portion at least, otherwise it will not draw out completely.

Rabbits, wildcats and foxes require a strong wire in each leg in addition to the bones to give them strength and rigidity.

Skin all specimens as soon as possible after death. Never pack the skins till dry.

SEXING. The sex of a bird is determined by dissection. After carefully removing the bowels, there will be seen in the *male* bird, next the backbone, above the kidneys, two round yellowish-white bodies as large as beans, in the Robin during springtime, but much smaller in fall and winter. In the *female* these are replaced by an irregularly shaped mass of tiny eggs of various sizes, very large in the breeding season, but in winter reduced in size so as to be readily discernible.

LABELLING. A specimen without a label is of very little value, often of none at all to a scientific collector. The label should *always* record the date, sex and locality of the specimen; it is also desirable that the length, stomach contents, condition, and name of the collector (the person who vouches for the date and locality) should be recorded but the first three are the important items.

In birds tie the label to both feet; in mammals tie it to one fore foot.

The Owl.

A BOY'S COMPOSITION.

Wen you come to see a owl cloce it has offie big eyes, and wen you come to feel it with your fingers, wich it bites, you fine it is mosely feathers, with only jus meat enuf to hole 'em to gether.

Once they was a man thot he would like a owl for a pet, so he tole a bird man to send him the bes' one in the shop, but wen it was bro't he lookt at it and squeezed it, and it diddent snte. So the man he rote to the bird man and said, I'll keep the owl you sent, tho' it aint like I wanted, but wen it is wore out you mus' make me a other, with littler eyes, for I s'pose these eyes is number twenties, but I want number sixes and then if I pay you the same price you can afford to put in more owl.

Owls has got to have big eyes cos tha has to be out a good deal at nite a doin bisnis with rats and mice, wich keeps late ours. They is said to be very wise, but my sister's young man he says any boddy could be wise if they would set up nites to take notice.

That feller comes to our house jest like he used to, only more, and wen I ast him wy he come so much he said he was a man of sience, like me, and was a studyin arithogaly, wich was birds. I ast him wot birds he was a studyin, and he said anjils, and wen he said that my sister she lookt out the winder and said wot a fine day it had turn out to be. But it was a rainin cats and dogs wen she said it. I never see such a goose in my life as that girl, but Uncle Ned, wich has been in ol parts of the worl, he says they is jes that way in Patty-gunny.

In the piete alphabets the O is some times a owl, and some times it is a ox, but if I made the picters I'de have it stan for a oggur to bore holes with. I tole that to ole gaffer Peters once wen he was to our house lookin at my new book, and he said you is right, Johnny, and here is this H stans for harp, but who cares for a harp, wy dont they make it stan for a horgan? He is such a ole fool.

A Crow Quandary.

The remark of J. O. S., in the December OOLOGIST, that in his locality, the Crow "is undoubtedly becoming less abundant each year," suggests an interesting subject for investigation: for it is generally supposed that the Crow can "hold his own" anywhere.

Here the gradual disappearance of the Crow is not so evident; on the contrary, they seem to be increasing, and the large flocks, which, with him are "things of the past," sre eminently things of the present.

All through the months of October, November and December, flocks are seen here almost daily, migrating in a leisurely manner toward the south. By the first of January, most of the migrants have disappeared and only the resident Crows remain; but about the first of March the van of the large flocks may be again looked for.

Since, in the last few years, the Crows have seemingly increased here, the decrease in J. O. S' locality may be occasioned by the gradual removal to some other point; and the increase here, be attributed to the same cause.

A change, similar to this, was noticed in the nesting habits of the Crows here, during 1887-8. In '87 nests were very common and many eggs were taken; but in '88, although there were as many Crows about, they had evidently taken warning by their experience of '87, and scarcely a nest was found.

The migration of the Crows south in autumn has given rise to some puzzling questions. Why do some Crows migrate while others do not? It has been suggested as an explanation of this question, that it is the females, and perhaps the young males, who migrate, and that only the old males stay all winter in their summer haunts: but this has not been proved.

I should be pleased to hear from our oologists in regard to the Crow's northern range in winter and also how far south the large flocks go.

WILLARD N. CLUTE, Binghamton, N. Y.

Birds of Macon County, Ga.

EDITOR OOLOGIST:

I saw a suggestion in your last issue that it would be of benefit to the student of birds to have some knowledge of the birds in each county or section. I think, myself, it is a good idea and will act upon it.

This county, Macon, is about 40 miles south of the center of Georgia. Is hilly in some parts, but no mountains. Flint River fringed by wide swamps, divides it.

I know but little of our swamp species, having had no opportunities for investigations.

Bird life is abundant and varying in upland and bottom. The nesters are many. The Mockingbird, Blue Jay, Brown Thrasher, Catbird, Eng. Sparrow and Bluebird are abundant at all seasons. The Turkey Buzzard and Carrion Crow are also quite common. The Summer Redbird, Cardinal, Yellow-shafted Flicker, Loggerhead Shrike, Bobwhite, Crow, Mourning Dove, Sparrow Hawk and Red-bellied Woodpecker are common at all times of the year. During the winter, Robins, Field Larks, Blackbirds and many Sparrows are very abundant. Several varieties of Ducks frequent the rivers and creeks. The more abundant kinds are Summer and "Green-head" with some Teal. No Robins nest with us. A few Larks and Blackbirds and probably some of the sparrows remain through the spring.

About the 1st of April the Martins, Bank Swallows, Kingbirds and Chimney Swifts appear and are soon very abundant. During the spring and summer at any time of the day in almost any spot one can see a Bee-Martin on some high perch, darting down for flies and twittering frequently.

I give some extracts from my notes in 1888:

Mar 29. Saw 1 Bank Swallow

" 30. Heard of several Black Martins.

April 1. Saw one or two Bee Martins.

" 2. Saw a Black Martin.

" 4. Saw, to-day, first Chimney Swift; 6 or 8 circling and twittering in the sunshine.

Bee Martins are becoming common; have seen but few Bank Swallows as yet, and one Purple Martin. Yesterday and to-day have been quite warm, and nesting will begin in earnest soon.

I saw on the 2nd, partially completed nests of Thrasher, Mocker and Shrike. C. B.— took an egg of the Turkey Buzzard several weeks ago. Robins have all gone, I think; saw one Sunday afternoon and think I've heard one or two since. The Sparrows are still plentiful. Doves have been mating for several weeks, but Quail are still in small scattered covies. Snipe have lately been scattered all over the country, frequenting ditches, ponds etc.

Mockingbirds are making day and night sweet with song and I suppose they are all building their nests now.

I am told that Red-headed woodpeckers have been here several days. Except the egg mentioned above, I know of none taken yet.

This is an exceptionally warm day for the first week of April as was yesterday also. Peaches are through blooming. Oaks have put out considerably; in fact, spring is upon us.

April 5. Heard the first Wood Pewee to-day. These birds are abundant here in spring and summer months.

April 7. Took a walk out back of Mr. F's house this morning; could hear three or four Mockingbirds singing "in full tilt" at at one time.

Apr. 8. Found nest and three eggs of Cardinal; fresh. First set of season.

Apr. 9. Took set of 5 Loggerhead Shrike. 1 has a ring of spots at small end; balance, as usual.

Apr. 10. Took set of 2 almost fresh eggs of Turkey Buzzard. Found in a cave near here. They are beauties; one don't find such every day.

Apr. 14. I took, to-day, set of 5 Red-bellied Nuthatch (?). Found nest in a snag in the middle of a large pond. The eggs measure .62 x .45, .62 x .46, .60 x .45, .60 x .45, .60 x .44.

Apr. 16. Took set of Tufted Titmouse

Measure, .66 x .54, .67 x .55, .67 x .57, .70 x .55; fresh.

May 1. Ricebirds come *en masse*, Leave 12th and 13th. Some stragglers later.

June 2. Took set 3 Redbird. Set 3 and nest Wood Pewee in a typical site. The nest was situated in a small fork at the end of a long, horizontal limb, 40 feet from the ground.

Found a nest and one egg (rotten) of Carolina Wren.

This large nest was placed on the top of a large, freshly cut pine stump, about 4 ft. high and almost flat on top. It was a very strange place for a nest; absolutely no shelter and in the middle of "new ground" field. I would have decided the nest was placed there by some person, but it was fitted to the wood too nicely for that.

There was lots of green moss used in its construction and some pine straw.

The birds here noticed lately as very abundant are the Mockingbird, Kingbird, Wood Pewee, Bluebird, Catbird, Eng. Sparrow, Blue Jay, Sand Martin, Chimney Swift.

Abundant:—

Red-head Turkey Buzzard, Carrion Crow, Flicker, Cardinal, Purple Martin.

Common:—

Wood Thrush, House Wren, Thrasher, Night Hawk, Chuck-wills-widow, Logger-head Shrike, Crested Flycatcher, Common Crow, Mourning Dove, Quail.

Tolerably Common:—

Sparrow Hawk, "Bluedarter," Marsh Hawk, Cooper's Hawk, Screech Owl, Wild Turkey, Ruby-throated Hummingbird, "Josee," Orchard Oriole, Red-wing Blackbird. There are many more, mostly rarer.

Ang. 1. Heard of some Ricebirds in fall plumage.

J. LEE EDWARDS.

Conundrums

FOR THE OOLOGIST.

When does a person, going to bed, resemble an oologist?—When he is going again (egging).

If an oologist drop a fresh egg, what does it fall against?—His will.

Why don't a bird lay two eggs at once?—Because she don't want to (two).

When is the letter "e" like the yolk of an egg?—When it is surrounded with sh-e-ll.

Why is the hat of the Chicago belle like a bird?—Because it is completely covered with feathers.

When is a game rooster like an oologist?—When he uses his spurs.

When is an Oriole's nest like a leaf?—When it hangs from a branch.

What kind of a bird sets the longest?—A stuffed bird.

When is an oologist's blow-pipe not a blow-pipe?—When it is (a miss) amiss.

What bird lays the most eggs?—The female, of course.

When is a bird like a hungry tramp?—When he is after grub.

Why is a Chipping Sparrow like a horse?—Because they cannot get along without hair or h(air).

What is the difference between a rolling stone and a Pheobe?—One gathers moss and the other doesn't.

When does an egg resemble a colt?—When it is broken (broke in)

When a bird lays one egg why does she lay another?—Because she wants to (two).

F. W. S., Pokeepsie, N. Y.

Carolina Wren.

(*Thryothorus ludovicianus*.)

This is the most abundant wren here during the breeding season. It even surpasses the House Wren in numbers. Its song, also is far sweeter. I have found their nests in all sorts of places, such as the following: Holes in trees, piles of lumber, out houses, rock walls and even in thick bushes near the ground. There seems to be no place where it will *not* build.

The nest is coarsely constructed of grass, hay, leaves, roots, feathers, and lined with hair and fine moss. It is generally covered over the top like an Eng. Sparrow's, with a hole in the side to admit the bird.

The eggs are pink, or flesh colored, spotted all over with a rich reddish brown nearly always forming a ring at the large end. The number varies from 4 to 8. Size, .75 x .60.

J. A. B., Morgantown, N. C.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, — ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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FRANK H. LATTIN,
ALBION, Orleans Co., N. Y.

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Jottings.

All prices quoted in Sept. '88 *Bulletin* will hold good for '89. If you have not a copy write for one.

At the time of going to press the report on the prize article contest has not been received from the judges.

Jesse Craven, of Holley, N. Y., writes us that the "Brewster's Linnet," described by F. C. L. in last *Oologist* was the Pine Siskin.

Parties desiring eggs or nests for Easter decoration or souvenirs had better obtain some of the Bargain Lots that are offered in this issue; also the cheaper eggs and the nests offered in the Davie collection.

The Naturalists' Directory is bound to be a success. We know of one collector that made an even \$5.00 from a single exchange that was made from having his name in last issue. Not a bad investment?

Our 10c coupon offer given in the PREMIUM LIST does not guarantee you to receive the *Oologist* by the 10th of each month, but is a forfeit which we will pay if the *Oologist* is not mailed by the 10th of each month. Feb. issue was mailed Feb. 8th.

At the low prices which our Bargain Lots are offered, collectors can make selections from a lot for their own collection which would cost much more to purchase at retail and then have duplicates enough left to either sell or exchange with other collectors for twice the amount the lot will cost them at our prices.

Davie's New Key, 3d edition, is expected almost daily. If not mailed before the next issue of the *Oologist* we shall have another letter from friend D—. The delay must be aggravating to our patrons, but nevertheless we will *guarantee* them to receive good interest on their investment, and if Mr. Davie continues to add page after page of interesting matter as he is now doing, it will be only the advance subscribers that will be able to obtain a copy at the low price of \$1.00.

Davie's eggs are going off rapidly, but nevertheless every purchaser will receive a prize that will prove quite acceptable and will well repay them for sending in their orders. From present outlook, we think a \$15 order will come pretty close to the 1st prize, and that there will not be competitors enough to take the 5th to 25th prizes and also that an order of only \$3.00 or \$4.00 will take the 5th or 6th prize. It will prove a big investment to any collector to send in a \$2.00 order. There will not be competitors enough to take the balance of the prizes. It will pay collectors to

send in their orders at once, even if for only 50c. Remember that every order mailed on or before March 15th is counted in the competition.

Collecting Experience.

BY "AVIS."

I thought that a few notes of the collecting experience in the summer of '88 from an active oologist might prove interesting to the readers of the OOLOGIST and so was prompted to write this article.

One of rarest sets (in this neighborhood) taken by the writer, was one of the Black Snowbird, (*Junco hyemalis*). I was coming home across the fields after a long day's jaunt, tired, but rich in oological specimens, when a leaden hued bird flew from a bush in front of me, which, upon scrutiny, was found to contain a neat nest, familiar to me as one this species from the many envious glances cast on one, which, with the clutch, adorned a rival collection. I took a close look at the bird to make very sure and then at a magnificent set of 5 little brown-spotted eggs reposing in the grass-lined cavity. That was the only set I have ever secured. I have often seen the birds during nesting season: I also found five sets of Chestnut-sided Warbler and two sets of Brown Thrasher, which makes four nests of the latter noted in this locality by me. The only other species I will note is the Green Heron (*Butorides virescens*) My friend and collecting companion, W. C., and myself found a herony on Wood Island, from which we got eight sets and have obtained forty, had we been so disposed. The nests were placed at altitude of 8 to 40 ft.; average 25. We noted 13 nests placed in bushes, mostly old ones, however. The eggs are too well known, to require description, but I can assure the reader that it was a sufficiently joyful occasion for me, at least, when I took the first set of four great beauties from the rough tenement in which they reposed; and, hoping the readers of the OOLOGIST all success during the coming season, I close this brief article.

Saco, Me.

A Red-tail Hawk's Nest.

On the 27th of last April, ('88), while walking through some heavy woods, I noticed a nest in a large oak tree with something like a tail sticking over the side. As hitting on the tree with a fence rail did not produce any result. I fired at the nest, when immediately a Red-tail Hawk flew off, so I knew there must be something there.

With the aid of climbers, I was soon up to the nest, which was, as usual, a large mass of twigs, lined with moss. It was about two feet in circumference and contained one egg. When I shook this to see if incubation had commenced, it cracked: and afterwards, in blowing, I found that the egg was rotten.

This seems very strange to me, as I don't remember ever having seen any other bird sitting so determinedly on a rotten egg.

Can any of the readers of the OOLOGIST offer an explanation?

W. E. P., Lake Forest, Ill.

The Story of a Tame Crow.

While passing through a piece of woods in the spring of 1887, the writer discovered a nest containing five young crows, one of which he brought home for a pet.

During the first few weeks of our acquaintance, Grip (he was named after Dicken's famous raven) divided his time pretty evenly between squaking and eating. His appetite was simply marvelous: he never seemed to have enough: after he had been filled so full that the last pellet of meal was not quite out of sight, he would still quiver his wings and feebly call for more.

When Grip became fully feathered and had learned to fly, he was taught to come when called and alight on hand or shoulder: on his appearance he was generally rewarded with something to eat, and when hungry he often took this method of making his wants known.

When Grip had learned to forage for himself he spent many hours in the garden picking up ants, spiders and other insects; he liked earth-worms the best of all and the writer's appearance, hoe in hand, was

always sure to call him from any business he might be about. If, as sometimes happened, his morning meal of worms was not forthcoming, he would go the place where they were generally dug, and caw till someone took the hint and dug them for him. He would always go out of his way to kill the big hairy caterpillars but was never known to eat one.

He was greatly delighted when given a Sparrow and generally carried it around with him for several days before devouring it. Like an Owl, he always threw up the feathers and other indigestible parts.

If given more food than sufficed for his present needs, he invariably had a hard time to conceal it, and would sometimes spend hours poking it into one place after another and cackling to himself about it. When a suitable place was found, the food was secreted and Grip would take himself off, not beyond sight of the place, however, for if anyone moved toward the spot, Grip would be there before him and with exultant cries bear the prize off to a place of greater safety.

When thirsty, Grip would fly to the kitchen faucet and caw till the water was turned on, when he would squat in the sink and allow it to drop into his open bill; if the water happened to be running too swiftly for this, he would stand on the edge of the sink and take little bites of the water as it fell.

Like all other crows, Grip early developed a mischievous disposition. He was soon master of the dog, cat and chickens and drove them about whenever he pleased; he liked particularly to tease the cat and would tweak her tail at every opportunity. On wash-days he amused himself by pulling the clothes-pins from the line, or walking on the clean clothes with muddy feet; this amusement soon got him into trouble, for the neighbors began to complain, and he was deprived of his liberty on such days.

When peas were to be shelled for dinner Grip was always on hand to pick up and hide any that might fall to the floor. His choice of hiding-places for anything not eatable, was in the writer's pockets or down

his back. He loved to alight on anyone's shoulder with a nail or other small article which he would drop down their back and then fly off before they were aware of his intentions. If he found anyone reading on the perch, he would, if allowed, take a nap on their shoulder or amuse himself by tugging at buttons or exploring pockets for small articles which he would try to poke into one's ears or up one's sleeve.

When the pansies began to bloom, Grip was often found busily picking the blossoms which he hid under the nearest plantain leaf or in the cracks of the sidewalk; it did little good to drive him from the beds, for as soon as the coast was clear he would go back again; but when satisfied in his own mind that he had picked enough he would leave the beds of his own accord.

Grip was an object of terror to small boys whom he would follow about pecking at their legs until they were glad to run away; for grown persons he generally showed more respect, and restricted hostilities with them, to marching along behind them; sometimes he varied the monotony of this by sitting quietly among the maples along the street until a person appeared, when he would swoop down upon them with his loudest *caw*, and then fly off greatly pleased with the fright he had occasioned.

Among the few words he could articulate he evidently gave the preference to "hello," saying it with many variations of the tone to suit the occasion. He would sit on the fence and tease the dog by a succession of queer barks, ending the performance with "Hel-o-o?"

As autumn approached, Grip absented himself for longer and longer periods; several times he was found in the company of his wild relations. One day late in the fall he disappeared again and was never seen after. We have often wondered whether he was shot or whether he went off with the wild crows; but since he had been seen with his wild friends, the latter supposition is probably the correct one.

WILLARD N. CLUTE, Binghamton, N. Y.

BARGAIN LOTS.

We have accumulated a large lot of odds and ends, some of which are very desirable and others not, but in every case they are worth much more than the prices we ask for them. We have packed them up in "Lots" and have commenced to list them in this Oologist at prices, in many cases, less than actual cost to us. At our low rates we cannot send prepaid, but will send by mail, express or freight, securely packed, at purchaser's expense. In order that our patrons may know in which way it will be best to have them shipped the weight of each lot is given. As a rule lots under 2 lb will go cheaper by Mail, 2 to 15 lb by Express, and over the latter weight by Freight; in all cases we will ship the way which will be of the least expense to our patrons. If ordered by Mail send one cent per oz. additional for postage. Always name other Lots that you can use in case we have sold the ones ordered.

Address. **FRANK H. LATTIN, Albion, N. Y.**

NO.	DESCRIPTION.	PRICE
1	50 Sand Crab Backs, from Martha's Vineyard, weight 10 oz.	\$0.40
2	120 Sand Crab Backs, 18 oz. ....	.75
3	12 Sea Spider Backs, weight 4 oz. ....	.25
5	8 King Crabs, Sea Spider. Egg Case of Periwinkle, 2 Skite Eggs, 3 or 4 shells, &c. poor.	5 oz. .30
10	Lot of Colo. & Western Spec. Silver Ore, &c., 3 lb. ....	.30
12	50 Strombus alatus, a fine showy Shell from the Bahamas the tips on this lot are broken or we would not sell for less than \$5.00 these in this lot will retail quick at 5c. each, 1 lb.	\$1.00
14	50 Fasciolaria distans. The remarks on lot No. 12 apply equally well to this species. 1 1/2 lb.	1.00
21	9 pol. Pearl Plates, Chinese Shells, 2 1/2 lb. ....	.90
23	20 Little Conchs, 10 Rock Murex and 2 Cones, 10 oz. ....	.30
29	9 Sun, 1 Fulgur, and 1 valute Shells, Organ Pipe and Branch Corals, and 1 pint small Brown and White spotted Bivalves for Fancy Work, 2 1/2 lb. ....	.50
42	1 Mammoth and Curious Sponge Bahamas size 8 in. x 12 in., 6 oz. ....	.50
46	16 2d class Nests of the Tarantula or Trap Door Spider, 3 1/2 lb.	1.00
48	Satin Spar, Gypsum. Tale, Green Qtz., Graphite, Mica Slate, Hornstone, Obside, 3 Micas, Agate, Marl, Tourmaline Black Mica. &c. 3 1/2 lb. ....	.50
68 to 70	Each contain a fine 1 in. by 1 in. spec. of the following Mne.als:—Porphy. Gneiss, Tourmaline. Novaculite. Agatized and Petrified Wood, Tale, Chalcopyrite, French Sandstone, Serpentine, and Magnesite. 15 oz. ....	.25
74 & 78	Each contain 30 var. of the Minerals from the following list, size 1/2 in. by 1/2 in.:—Agate. Quartz, Garnetiferous Granite, Petrified Wood, Conglomerate, Gneiss, Porphyry, Asbestos, Tale, Leelite, Tourmaline. Magnetite, Trap. Graphite.	

Hematite, Pyrites, Black Mica, Granite, Gypsum, Moss Agate, Garnet, Sandstone, Agatized Wood, Labradorite, Hornblende, Serpentine, Williamsite, Cyanite, Enstatite, Magnesite, Coquina, Limonite, Marble, Tufa, Copper Ore, Flint, Asphaltum, Onyx, 12 oz. ....	.35
79 to 83 Each contain 30 var. of same Minerals as in last lots, size 1 in. by 1 in. 2 1/2 lb. ....	.60
84 Pkg. of 10 Minerals, 5 Iowa and Mazon Creek Fossil Ferns, 4 Mica, Hematite, 3 Drusy Qtz., 1 each of Calciorum, Qtz. Xtals, Tufa, Lithomarge, Corundum, Green Feldspar, Andalusite, Enstatite, Blk. Mica, Asbestos, and Chalcedony, 3 1/2 lb. ....	.60
88 10 oz. Creip, 5 oz. White Lily, 5 oz. White Rose leaf, and 8 oz. small White Bivalve Shells. The entire lot is a splendid assortment of White Shells for fancy work, 2 1/2 lb.	1.00
89 2000 Small Flat E. I. Snail Shells, quite pretty, 1 lb. ....	.50
102 10 Nam. Minerals, 6 Clusters of Gypsum Xtals, 24 Halite from Syracuse, N. Y., 3 Psilomelane? 3 1/2 lb. ....	.40

—INDIAN RELICS—

126 6 Small Knives, assorted sizes, 4 oz. ....	.30
128 6 Knives, well assorted, 8 oz. ....	.40
136 25 Arrow Heads, mostly small war points 8 oz. ....	.75
137 2 small Club Heads and 5 pcs. used either as Knives or Scrapers 7 oz. ....	.50
138 1 Agate Drill, 6 Flint Spear Heads and 16 Arrow Heads (a few rare forms) The spec in this lot are broken but at least 1/2 of each spec. remains 15 oz. ....	.75
139 10 finely assorted Knives 15 oz.	1.00
141 6 small Knives 5 oz. ....	.50
142 12 small Bld and War Points 3 oz. ....	.40
143 4 good Knives 9 oz. ....	.75
144 20 pieces, doubtless, used as Knives or Scrapers 1 1/2 lbs. ....	.75
145 20 Spear Heads, part of them slightly imperfect 1 1/2 lbs.	1.10
146 80 Arrow Heads 2 lbs.	2.00
147 116 Arrow Heads 2 1/2 lbs.	2.50
149 30 large Arrow or small Spear Heads 27oz.	1.50
150 15 small Knives 7 oz.	1.00
151 11 medium Knives 12 oz.	1.25
152 11 notched Scrapers 4 oz.	1.25
153 15 Scrapers 8 oz.	1.25

- 134 125 broken pieces of Arrow Heads. Spear Heads, Knives etc., of Flint, Jasper etc. (various forms of barbs or notches well illustrated) 3 lbs. 1.25
- 158 1 fine Axe, broken and mended, 1 small Axe, 1 unnamed pc, 3 lbs. 75
- 159 3 Axes, 2 $\frac{3}{4}$ lbs. 75
- All the above Relics are from the Mounds of the Ohio Valley. And also Lots No. 182 to 189.
- 160 5 half shells *Venus mercenaria* from Ind. Shell Heap Casco Bay, Maine, 5 oz. 30
- 161 3 fine shells *Buccinum*, same as Lot 160, 4 oz. 30
- 162 6 *Natica*, same as 160, 4 oz. 30
- 163 1 Leg Bone from Ind. Grave, Mich. fine, 15 in. long, 8 oz. 35
- 164 2 13 in. Bones same as 163. 2 oz. 30
- 169 30 Arrowhead Chips, Mich. 16 pcs. marked pottery, So. Car. 40 Arrowheads, Spears, &c., of Quartz, Jasper, &c., Ga. 2 $\frac{1}{4}$ lb. 1.00
- 170 3 Arrowheads, Pa., 80 Arrowheads, Spears, &c., Ga., 3 Minerals, 2 $\frac{1}{2}$ lb. 1.50
- 171 1 War Club head, Ind., 3 Knives, Ga. 33 Arrowheads, &c., Ga., 2 $\frac{1}{2}$ lb. 75
- 172 3 Me. Minerals. 2 pcs., Ind. Bones, 6 extra serrated Arrowheads without base, 4 imp. Spears, 12 imp. Arrowheads, 3 imp. Knives. Ohio, 2 $\frac{3}{4}$ lb. 90
- 174 1 fine flint Drill with point broken, 1 good Flint Chisel, 1 very fine Knife, Ohio, 3 oz. 80
- 175 55 imp. Spearheads, Tenn. 3 lb. 1.25
- 176 85 fair Arrow-heads, Tenn., 2 $\frac{3}{4}$ lb 2.00
- 177 12 fair Spear heads, Tenn., 11 oz. 1.00
- 179 12 " " " 15 oz. 1.00
- 180 12 " " " 15 oz. 1.00
- 181 5 Spears and 6 Knives, Tenn., 11 oz. 1.00
- 182 2 fine Knives, 1 large scrape, 1 Hoe. 7 oz. 1.50
- 184 30 rude implements from Southern Ind., used for War Club heads, Knives, Scrapers, &c. 3 $\frac{3}{4}$ lb. 2.00
- 185 20 Knives. Scrapers, &c., 2 or 3 War Club heads, 10 broken pcs., Ind., 2 $\frac{3}{4}$ lb 1.50
- 186 10 unnotched Scrapers, 6 notched Scrapers, Ind., 6 oz. 1.25
- 188 An unsorted lot of Knives, Scrapers, &c., 30 pcs 2 $\frac{1}{2}$ lb. 1.50
- 189 40 pcs. same as lot 188, 2 $\frac{3}{8}$ lb. 2.00

MISCELLANEOUS

- 190 4 dark Sand Dollars, 15 fine White Sand Dollars, 1 imp. Key hole Urchin, 4 imp., Dollars, 6 oz. 50
- 192 16 advertising Electrotypes will set 80 inches, single column ads. contain cuts of over 20 articles—A bonanza for an Amateur printer, 9 $\frac{3}{4}$ lb. 1.00
- 193 20 Pliocene Fossils *Saxicora rugosa*, Maine, 3 oz. 40

- 194 A very fine collection of Iowa Fossils, Carboniferous, 18 pcs., a fine assortment of Ferns, Plants, Sea Weeds, &c., 4 lb. 2.50
- 195 Another collection same, 12 pcs. but not as fine as last lot, 2 $\frac{3}{8}$ lb. 1.00
- 196 Same as 195, 11 pcs., 2 $\frac{1}{8}$ lb. 75
- 197 Same—17 spec, mostly Ferns 2 $\frac{1}{4}$ lb 75
- 198 40 red and black Glass Beetles, gilt legs and trimmings, 1 in. body, good for Taxidermists, 7 oz., 75

SECOND CLASS BIRD'S EGGS

Some of the spec. in the following lots are only slightly imp., while others are decidedly so, but in either instance we guarantee them to be worth more than our prices, we have exercised care and have taken considerable pains in packing them and think they will go safely without breakage, but as we are clearing out our 2ds we will not duplicate broken specimens.

- 200 12 Brewer's Blackbirds, 12 Catbirds 2 Bluebird, 3 var. of Turtle, 12 Flickers, 2 Bluebird, 1 elongated and 1 very curio. pyriform shaped spec. of Henfruit, 11 oz. 60
- 201 15 Brewer's Bl'kbird, 7 Flicker, 20 Catbird, 20 Bluebird, 1 Canary, 10 oz. 60
- 203 40 Catbird, 10 Quail, 6 Blue Jay, 10 oz. 70

In the following Lots we have used Ridgway's No.'s in place of printing the names of the species.

- 205 9 Eng. Sparrow, 22 Bluebird, 18 Catbird, 2, 480; 4, 261; 5, 378; 1, 242; 2, 278a; 4 Starling, 9 oz. 75
- 206 1 ea. of 193a, 149, 226, and 236; 2 ea. of 267, 254, 251; 6, 93; 4, 11; 6, 248; 5, 12; 14, 22; 20, 153, 9 oz. 1.50
- 207 1 ea. of 27, 193a, 51, 42, 135, 257, 259, 245, 237a, 361, 146; 2 ea. of 170, 60; 4 ea. of 312, 320, 5 oz. 1.25
- 208 2 of 258; 6, 271; 7, 315; 12, 214; 4, 7; 1, 157; 12, 154; 7, 231; 9, 151, 10 oz. 75
- 209 1 each of 1, 24, 152, 36, 193a, 316, 183, 207, 217, 201, 202, 97, E. S., 135, 143, 181, 68, 182, 77, 42, 123, 114, 32, 61b; 2 of 27; 3 of 52, 4 oz. 2.00
- 210 3 of 24; 4, 12; 12, E. S.; 4, 151; 13, 211; 5, 261; 2, 13; 2, 214; 11, 157; 3, 320; 2, 41; 3, 304; 2, 289; 2, 261a; 3, 244; 4, 326; 1 ea. of 193a, 170, 143, 231, 231a, 315, 93, 149a, 274, 1, 10 oz. 1.25
- 211 3 of 22; 2, 23; 7, 214; 2, 151; 6, 231a; 9, 157; 1 ea. of 21, 24, 41, 181, 13, 498, 6 oz. 70
- 212 7 of 261a; 11, 304; 2 ea. of 289, 1, 12, 7, 277; 1 ea. of 264, 7a, 11, 244, 6 oz. 50
- 215 35 2nd-class eggs from Sweden; mostly unnamed, 11 oz. 50
- 217 10 La Plata Dove from So. Am. 1 Thick-billed Vireo, Bahamas, 3 European Wren and 1 Chiffchaff. Eggs in this lot nearly if not all 1st-class. 4 oz. 1.50

Minerals.

The following lots are all good specimens and the reason for closing them out is that we have not the time to attend to our Mineral department as we wish, and shall close out most of our stock:

225	7½ lbs. Tremolitic Talc, Jeff. Co. N. Y.	60
226	2 lbs. Quartz and 2 lbs. Smoky Quartz in Calcite, Ct.; ¾ lb. Jasper Conglomerate, 1 lb. Pyrite, Mo.; ½ lb. Obsidian, Lip. Isles; 1½ lbs. Sphalerite and Calcite N. Y.; ¾ lb. Magnetite, Pa.; 1 lb. Mica, Hematite; ½ lb. Calcite, Saxony; 10½ lbs.	80
227	13½ lbs. Magnetite, N. Y.; 1½ lb. Mica, Conn.; 1½ lb. Calcite, Pa.; 2½ lb. Pearl Spar, N. Y.; ½ lb. Albite, Ct.; 1 lb. Calcite, Mo.; 2 lbs. Amphibole, N. Y.; ¾ lb. Oolitic Iron, Tenn.; 11½ lb.	100
228	3¾ lbs. Gypsum, Mich.; 3½ lbs. Marcasite, Ill.; 2 lbs. Galena and Fluorite, Ky.; 3½ lbs. Hematite, Ky.; 13 lbs.	90
229	14½ lbs. Gypsum, Nova Scotia; 4½ lbs. Hematite, Pa.; 1 lb. Selenite, N. Y.; 3 lbs. portions of Geodes, Ia.; 9¾ lbs.	60
230	2½ lbs. Pectolite, N. J.; 6½ lbs. Barite, N. Y.; 1½ lbs. Limonite, Pa.; 1½ lbs. Anhydrite, N. S.; 11½ lbs.	100
231	5 lbs. Mica, N. H.; ¼ lb. Nickel Ore, Pa.; ½ lb. Barite, Eng.; ¼ lb. Barite, Ct.; ½ lb. Agate, Brazil; 6½ lb.	100
232	2 lbs. Pear Spar, Eng.; 4 lbs. Calcite, N. J.; ½ lb. Cannel Coal, Eng.; 2¾ lbs. Williamsite, Pa.; 1½ lbs. Albite, Ct.; 10¾ lbs.	100
233	4¾ lbs. Calcite on Hematite, Pa.; 3½ lbs. Heavy Spar, Ct.; 1½ lb. Peacock Coal, Pa.; 1 lb. Fluor Spar, Eng.; 10½ lb.	60
234	4½ lbs. Indurated Clay, M.I.; 4 lbs. Apophyllite, N. J.; ½ lb. Picrolite, Md.; ¾ lb. Alabaster, N. S.; 9½ lbs.	100
235	1½ lb. Aragonite, Black Hills; 4½ lbs. Dolomite, N. Y.; ½ lb. Dawsonite, Can.; 6¾ lbs. Stilbite, N. J.; 12½ lbs.	100
236	11 lbs. Chromite, Md.	90
237	contains over 250 spec. of over 60 minerals from all parts of the world; mostly fragments. Have not counted any that is not at least ½ in. greatest extent. Labeled 4¾ lbs.	200
Lots 238 to 245 are all from the Black Hills. If you obtained them direct, the freight alone would cost more than our price.		
238	4 lbs. Tuff, Petrified Moss; 5½ lbs. Glassy Quartz; 10 lbs.	100
239	8 lbs. Pink, White Gypsum	80
240	3 lbs. Pyrites, 1½ lbs. Carbonate Ore, 2½ lbs. Silver Ore, 1 lb. fragments, 1 lb. Barites; 10 lbs.	100
241	7¾ lbs. Tin bearing Ore	100
242	13½ lbs. Black Tourmaline	1.25
243	5 lbs. Denrites, (Forest Rock); 2¼	

lbs. Quartz; 7½ lbs.	85
244 4½ lbs. Petrified Wood	75
245 1 lb. Garnets in Schist, 1½ lbs. Gold Ore, 2½ lbs. Galena; 4½ lbs.	60
246 50 Pebbles of Agate, Carnelian, Jasper, Sard, Chalcedony, &c., from W. Iowa, 14 oz.	40
247 2 lbs. mixed lot spec. unnamed, mostly Colo. ½ lbs. Red Ochre, Me; 1½ lb. spec. of Dendritic, form curious, Ia.; ½ lb. Cairngorum, Pks. Pk.; 3 lbs. Rock Mt. Minerals; 1 lb. Hematite, Elba; 8½ lbs.	75
248 2 lbs. Carbonate Ore, Colo.; 3½ lbs. Copper Pyrites, Arizona; 3½ lbs. Gold-bearing Ore (so called at Denver); 9½ lbs.	1.25
249 12½ lbs. of Ore Composed of Galena, Pyrites, Silver, &c., Colo.	1.25
250 1 lb same as last lot. but surface covered with Quartz Xtals: 4 lbs. Mica, Va.; 3 lbs. Massive Golden Ochre, Colo.; 8½ lbs.	1.00
251 9 lbs. Bog Iron, Mt. Katahdin, Me.; 4 lbs. Pet. Palm, Petrified Forest, Colo.; 13 lbs.	1.00
252 A 9 lb. spec. of Botryoidal Limonite, Mt. Kat.; 6 lbs. Pet. Palm, Colo.; 15 lbs.	1.25
253 5 lbs. Copper bearing ore, New Mexico	75
254 5 lbs. Copper bearing ore, N. M.	75
255 4½ lbs. of Rocky Mt. Min. con. pkts. lined with Qtz. Xtals. 3 lbs. Botryoidal Limonite, 8 lbs.	75
256 6½ lbs. Bog Iron, Me., 3½ lbs. Pet. Palm, Colo. 10½ lbs.	80
257 8 lbs. Dendritic Rock broken in 200 pcs. Colo., ½ lb. Wavellitic Rock, Ark; 8½ lbs.	50
258 1½ lbs. 20 spec. Steatite showing Actinolite, N. H.; 1½ lbs. Electric Stone; 1½ lbs. Granite, N. Y.; 1lb Tremolite, Ct.; 12 labeled small spec. 5½ lbs.	75
259 2½ lbs. Limonite, Ky.; 1lb Bronzite, Pa., Spec. ea. Autonite, Wernerite, Columbite, Beryl, Garnet in Albite, 5 lbs.	50
260 10 showy small spec. Gypsum Xtals, spec. ea. of Pink Calcite, Hornstone, Microline, Hornblende Schist, Chalcedony, Cyanite, Pet. Palm and Wood, Williamsite, Blue Calcite, Hematite, 3 Tufa, Chalcocopyrite, Bronzite, Magnetite Xtals. 3 lbs.	1.00
261 1 lb Silicified Wood, 1 lb Chalcocopyrite, ½ lb Hematite, Specular Iron, 2 fine Datolite, 5 rare min., label lost, 14 named mineral spec. good, 4½ lbs.	1.00
263 4½ lbs. Granite, 3 var., Vt. and N. H., 1½ lbs. Verde Antique, 2 lbs. Pyrites, ½ lb. Mica Schist; 5 lbs. Mica, Black Hills; 13 lbs.	1.25
264 2 lbs. Magnetic Iron; 2 lbs. Indurated Clay; ¾ lb. Feldspar; 1½ lb. Calc Spar, Black Hills; Petoskey "Agate"; ½ lb. Clippings, 7 lbs.	

265 $3\frac{1}{2}$ lbs. Sphalerite and Siderite; $\frac{3}{4}$ lb. Conglomerate; $1\frac{1}{2}$ lbs. Pearl Spar, Eng.; 1 lb. Limonite, 1 lb. Peacock Coal; $2\frac{1}{2}$ lbs. Copper Pyrites; $\frac{1}{2}$ lb. Barite, $\frac{1}{2}$ lb. Fragments; $\frac{1}{2}$ lb. Pet. Wood, Fos. Coral, Ia.; 12 lbs. 1.00

266 $1\frac{1}{4}$ lb. Copper Ore, L. S.; $3\frac{1}{4}$ lbs. Canuel Coal, Ky.; $3\frac{1}{4}$ lbs.50

267 2 Asphalt, 4 Qtz. Xtals, Hematite, 2 Pyroxene, Williamsite, Marcasite, 2 Smoky Qtz., Amethyst, Tufa, Smoky Selenite, 2 Blk. Mica, Cunninghamite, Switz. Xtals, Sil. Wood; fine lot: $1\frac{1}{2}$ lbs. 75

268 Chalcocopyrite, Pumice, Chalcedony, Halite, 2 Datolite, 2 Calcite, 2 Sodolite, Microline, Qtz. Xtal, Fluorspar, $\frac{3}{4}$ lb. mixed spec.; $1\frac{3}{4}$ lbs.60

We can furnish duplicates of Lots No. to 274, inclusive.

269 Contains a 10c spec. of each, *Fluorspar, Cumberland, Eng.; Quartz Crystal, Hot Springs, Ark.; Chalcedony Geode, Tampa Bay, Fla.; Native Lodestone Magnet Cove, Ark.; Amethyst, Thunder Bay, L. S.*

The following are all polished specimens:
Carnelian, Brazil; Moss Agate, Brazil; Onyx, Germany; Clouded Agate, Brazil; Labradorite, Labrador; Crocidolite or Tiger Eye, So. Africa; Bird's Eye Coral, Iowa; Fish Egg Coral, Iowa; we mail this lot prepaid 1.00

270 Contains a 25c specimen of each mineral named in Lot 269, by Express. 2.25

271 Contains a 50c specimen of each mineral named in Lot 269, by Express. 4.00

272 Contains a \$1.00 specimen of each mineral named in Lot No. 269, by Ex. 7.50

273 Contains a \$2.00 specimen of each Fluorspar, Fossil Coral, Amethyst, Crocidolite, Carnelian, Onyx and Labradorite; by Express. 8.00

274 Contains a \$4.00 spec. of each Fluorspar, Amethyst, Crocidolite, Carnelian, Onyx and Labradorite; by Express. 18.00

275 Contains a \$10.00 specimen of each Carnelian Agate, Brazil; Black striped Agate or Onyx, Brazil; Amethyst, Brazil; Mammoth single Crystal of copper-colored Calcite from a pocket in a mine in Mo.; a very choice Chalcedony Waterstone from Uruguay; by Freight or Express, 40.00

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ALBION, N. Y.

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During the past few years we have cheerfully attempted to

IDENTIFY ALL SPECIMENS

our friends have sent us, and this without remuneration; but owing to the fact that we are now receiving packages by the dozen for this purpose, and that our time is more than occupied with our regular business, in the future we shall be obliged to CHARGE our friends in addition to return postage the following

RATES:

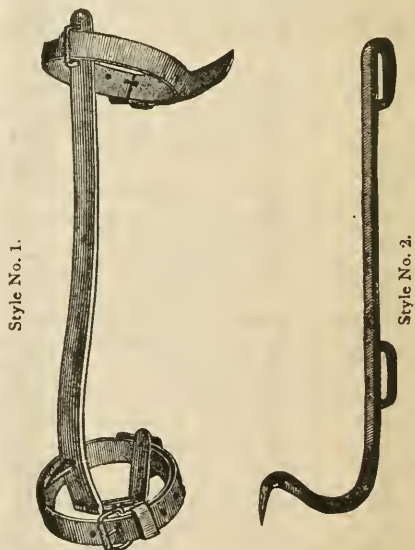
Single or first Specimen, - 10 cts.
Second to tenth Specimen, - 3 cts. each.
Eleventh Specimen and over, - 2 cts. "

The above rates for identifying we think very reasonable. We have spent several years in handling and studying specimens of various kinds, and have on hand a very large stock with which comparisons can be made. We also have the leading works to use as reference. The advantage of having specimens properly identified is invaluable to collectors.

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SPECIAL.

For the season of '89 we will send you either style of climbing irons for only \$2.25 Style No. 1 is the best. Should you desire the irons only, without straps we will send them by express for only \$1.50.

SAMPLES.

For the convenience of our patrons we have arranged the following sets of samples any of which will be sent prepaid upon receipt of price:

Trays, 4 sizes,.....	05
Cotton for lining trays and cabinets six samples, 2 grades, 4 colors.....	03
Gummed Labels, useful for any business, 10 styles,.....	03
Tags, 4 styles,.....	02
Datas, Labels and Blanks, sheet of 20 Samples,.....	02
Checking List, contains names and numbers, both Ridgeway's and A. O. U.,.....	02
Cork, 3 grades,.....	03
Insect Pins, 8 sizes,.....	03

We will send all the above samples, if ordered at one time, for only 20 cts.

FRANK H. LATTIN,
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A choice specimen of anything on this list will be sent post-paid for 5 CENTS, or we will send the entire collection, 42 specimens, packed in a neat wooden box post-paid FOR ONE DOLLAR.

No. 1 Resurrection Plant, Mex.	29 Alligator Tooth, Indian River, Fla.
2 Card Marine Alga, Martha's Vineyard	30 Crinoid Stem, Cumberland River, Tenn.
3 25 var. Foreign Stamps	31 Curio Sponge, Bahamas
4 Sun Shell, Nassau, Bahamas	32 Fossilized Wood, Succoway Co., Cal.
5 Starfish, Cape Cod, Mass.	33 "Electric" Stone, Jeff. Co., R. Y.
6 Bark from Cork Tree, Spain	34 Sand Shark Egg, Atlantic
7 "Big Tree" Bark, Mariposa, Cal.	35 Flexible Coral (Adams), Fingee Island
8 Head Dollar, Casco Bay, Me.	36 Limpet, Bahamas
9 Chinese Coin	37 Bloodwood Shell, Nassau
10 Tusk Shell, W. I.	38 Small Shark Tooth, B. C.
11 Cyprine Coral, Singapore	39 Operculum or Shell Door, Bahamas
12 Cyprine Lyræ, Singapore	40 Naive Lodestone, Magnet Cove, Ark.
13 Cyprine Adolite, Ambrosia	41 Olive Shell, Zanzibar
14 Cyprine Arabion, E. I.	42 Guinea Pew, Bahamas
15 Red Sea Bean, Bahamas	43 Piece of Looch, Japan
16 Gray Sea Bean, Nassau, Bahamas	44 2 Egg Capsules of Perletrichia, Atlantic
17 Brown-Banded Sea Bean, Bahamas	45 Piece of Tapa Cloth, made by the King of Samoa Island
18 Screen Shell, China	
19 Branch Coral, Bahamas	
20 Arrowhead, Orange Co., Indiana	
21 Acorn Barnacle, Pacific	
22 Rose Coral, Bahamas	
23 Quartz Crystal, Hot Springs, Ark.	
24 Sea Urchin, Atlantic	
25 Shaving from a Miser, Conshohocken, N. M.	
26 Money Cowry, Ceylon	
27 Pink Coral, Caroline Isles	
28 Indian Pottery, Orleans Co., N. Y.	

This is truly one of the most "Marvelous" collections ever put up. It is especially adapted to kindergarten work, and while proving invaluable to "young naturalists," older ones will appreciate its merits. The specimens at retail prices amount to over \$1.00. We will send the entire collection by return mail, each specimen labeled, **ONLY 50 CENTS** and wrapped separately, safe delivery and satisfaction guaranteed, for Address plainly, **FRANK H. LATTIN, ALBION, N. Y.**

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From all parts of the World, viz: Europe, Asia, Africa, Oceanica, North America, South America, West Indies, and Greenland.

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The following Minerals are found in this collection, viz: Actinolite, Agate, Alabaster, Albite, Amethyst, Anhydrite, Anthracite, Apatite, Argentiferous Galena, Asbestos, Asphaltum, Barite, Borax, Buhrstone, Cairngorum, Calamine, Calcite, Calc Spar, Cannel Coal, Cassiterite, Catlinite, Celestine, Chalcedony, Chalk, Chalcocopyrite, Chromite, Coquina, Cryolite, Malachite, Cyanite, Dawsonite, Dendrite, Dolomite "Electric Stone," Trypollyte, Enstatite, Fibrolite, Flint, Flos Ferri, Fluorite, Franklinitite, Galenite, Garnet, Gold Ore, Gypsum, Indurated Clay, Hematite, Iceland Spar, Jasper, Labradorite, Lead Carbonate, Leelite, Lignite, Limonite, Lodestone, Magnesite, Magnetite, Marble, Marcasite, Mex. Onyx, Muscovite, Milky Quartz, Coke, Natrolite, Obsidian, Wood Opal, Peacock Coal, Pearl Spar, Pet. Wood and Palm, Phologopite, Porphyry, Pumice, Pyrites, Quartz Xtal, Rose Quartz, Graphite, Satin Spar, Selenite, Serpentine, Sil. Wood, Emery, Sphalerite, Stibnite, Stilbite, Talc, Crocidolite Rensselaerite, Tourmaline, Tufa, Variscite, Wavellite, Willemite, Williamsite, Wollongonite, Wood Jasper, Zincite.

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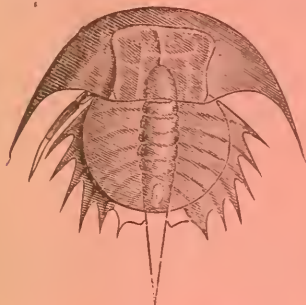
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First-class single eggs of Golden Eagle, \$1.75; Richardson's Owl, 1.00; American Scoter, 1.00; Red-throated Diver, .50; Glaucous Gull, .50; European Hawk Owl, 1.20; Barrow's Golden Eye, .55; American Water Ongel, .50; Brown Creeper, .45; and Whistling Swan, 2.20, with full data. Sets of the above also. Seed for full list. Coite K Woodruff, Hotel Balmoral, Montreal, Canada.

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Orders under 25c add 5c for postage. Between 25 and 50c add 10c. Between 50c and 75c add 5c; above 75c we will send prepaid.

Catbird, Bluebird, Flicker, Pewee, Cliff Swallow, Robin, Mourning Dove, English Sparrow, Brown Thrasher, Kingbird at only.....	1c each
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Black-crowned Night Heron,.....	.04
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Little Blue Heron,.....	.05
Snowy Heron,.....	.06
White-crowned Night Heron,.....	.10
Alligator,.....	.10
Am. Avocet,.....	.20
Am. Eared Grebe,.....	.15
Black Skimmer,.....	.04
Laughing Gull,.....	.08
Am. Herring Gull,.....	.08
Gannet,.....	.10
Am. White Pelican,.....	.20
Am. Flamingo,.....	.25

Address at once,

FRANK H. LATTIN, Albion, N. Y.



OÖLOGIST.

Monthly.

50c. per Year.

Vol. VI,

ALBION, N. Y., APRIL, 1889.

No. 4

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

WANTED.—Sets with data in exchange for single eggs over one hundred varieties to select from. Send lists. C. W. TREAT, Brooklyn, O.

WANTED.—Live Cocoons of *Attacus Luna* and *Chrysalids* of N. A. Lepidoptera. W. J. SIMPSON, 91 Park Row, N. Y. City.

WILL EXCHANGE specimens of any kind for good collections of postage stamps. OÖLOGIST, Albion, N. Y.

WANTED.—To correspond with collectors throughout the United States and Canada. Address, E. W. LAPP, 417 North 32nd Street, Philadelphia, Pa.

TO EXCHANGE.—Sets of 15a. \$5, 15b. 22, 23d, 24b, 37b, 411, 412a, 423, 425, 441, 449, 471a, 507, 692, 721 and many others rare and desirable. Send exchange list of sets. CHARLES E. DOE, Box 495, Providence, R. I.

WANTED.—In large quantities, the following Fossils: Belemnites, Fossil Fish, Tribolites (*Culmen senaria*), Pentremites (*pyriformis* or *gdonis*), and Shark teeth. Address stating lowest cash or exchange prices, FRANK H. LATTIN, Albion, N. Y.

TO EXCHANGE.—A set of Taxidermists Instruments in good order, consisting of 1 scalpel, 1 set chain hooks, 1 pair forceps, dissecting scissors for b-s offer of first-class eggs, before May 3rd. H. J. TWIGGS, Summerville, Augusta, Ga.

Will exchange any of the "Bargain Lots" listed in this Oölogist for desirable specimens or Books on Natural History. What offers? Frank H. LATTIN, Albion, N. Y.

WANTED.—TO PURCHASE COLLECTIONS OF INDIAN RELICS AND OTHER CURIOSITIES FOR WHICH CASH WILL BE PAID. PARTIES HAVING SUCH FOR SALE WILL PLEASE CORRESPOND WITH W. H. H. KING, JACKSONVILLE, ILLS. ayr

TO EXCHANGE.—A Flamingo's egg or a Hummingbird's nest for two young Grey Squirrels. They must be healthy when received, and old enough to feed themselves. J. HARMANUS FISHER, JR., 1300 St. Paul St., Baltimore, Maryland.

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Your name and address will be inserted in any department, 1 month for 10 cts.; 3 months, 25 cts.; 6 months, 40 cts.; 1 year, 75 cts. Should you desire to have your name printed in more than one department, one-half of these rates will be charged for each additional one.

Live collectors will not be long in observing the importance of keeping their names standing in this Directory. Collectors and dealers desiring to make sales, purchases or exchanges will not only write to the parties whose names appear in this directory for their wants, but will also keep them posted on "bargains" that they may have for sale cheap; publishers having papers etc., that would be of interest to the persons whose names appear in this Directory, will recognize the importance of placing samples etc. in the hands of Live Collectors and will act accordingly.

Collectors receive as high as Fifty Letters, Postals, Circulars, Samples etc. from having their names inserted one time at a cost of only 10 CENTS in this Directory. Address, THE OOLOGIST, Albion, N. Y.

SEWANEE, TENN., MARCH 19th, '89.

I enclose 25cts. to have my name inserted in the OOLOGIST for 3 months under Bird's Eggs. It is really a good investment. Instead of having to send for catalogues they are all sent to you; besides exchange lists, bargains etc. which you could only get by a great deal of trouble in any other way.

Yours Truly,
F. E. Shoup.

BIRDS' EGGS.

- | | |
|---|----|
| H. W. Davis, North Granville, N. Y. | my |
| L. W. Nichols, Jr., Richmond, Ills. | m3 |
| Coite K. Woodruff, Hotel Balmoral, Montreal, Can. | m3 |
| R. B. Tronslot, Rooms 15 & 16, Humboldt Block, Kansas City, Mo. | 3m |
| G. W. Treat, Brooklyn, Ohio. | |
| L. D. Richards, Kirkwood, Wis. | |
| M. D. Cooper, Antrim, N. H. | |
| Colburn & Lake, No. 1938, 14th St., Wash ngton, D. C. | |
| Will A. Moore Box 661, Norwalk, O. | |
| F. E. Shoup, Sewanee, Tenn. | A3 |
| Mylo E. Ryan, Box 106, Rouses Point N. Y. | |
| E. B. Peck, Brockport, N. Y. | |

BIRD SKINS.

- | | |
|--|----|
| L. W. Nichols, Jr., Richmond, Ills. | m3 |
| Geo. G. Cantwell, 2215 Chestnut Ave., Minneapolis, Minn. | |
| Colburn & Lake, No. 1938, 14th St., Washington, D. C. | A2 |
| E. B. Peck, Brockport, N. Y. | |

TAXIDERMY.

- | | |
|---|----|
| Mrs. E. C. Wiswall, Prairie DuSac, Wis. | m3 |
| L. W. Nichols, Jr., Richmond, Ill. | m3 |
| Colburn & Lake, No. 1938, 14th St., Washington, D. C. | A2 |

CURIOSITIES.

C. P. Wilcomb, Visalia, Tulare Co., Cal.

INDIAN RELICS.

C. P. Wilcomb, Visalia, Tulare Co., Cal.
Wofford Brown, 123, 3rd St., Parkersburg, West Va.

Mylo E. Ryan, Box 106, Rouses Point, N. Y.

BOTANY.

James Galen, Rawlinsville, Pa. m3

INSECTS.

Elliott Field, West Jersey Academy, Bridgeton, N. J.

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C. H. & E. A. Gibbs & Co.,

KALAMAZOO, MICH.

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It has been deemed advisable to offer the few remaining eggs at the following greatly

Reduced Rates

Which range from 10 to 50 per cent less than previous quotations and will average over 25 per cent.

\$20.00 Worth of Eggs IN SETS FREE!

We have concluded to show that we appreciate the efforts of our oological friends in assisting us in disposing of this collection by making the largest purchasers presents of the following valuable eggs:

To the person sending us the largest amount of money for Davie's eggs, either sets, singles or nests on or before May 15, 1889, we will give a set of one egg of the Bald Eagle.

To the second largest purchaser a set of 1 egg of the Bridled Tern.

To the third largest purchaser a set of 4 eggs of the Horned Grebe.

To the 4th and 5th largest purchasers each a set of 1 egg of the American Flamingo.

To the 6th and 7th largest purchasers each a set of one egg of the Noddy Tern.

To the 8th to 10th largest purchasers each a set of 1 egg of the Sooty Tern.

To the 11th to 15th largest purchasers each a set of 2 eggs of the Black Tern.

To the 16th to 25th largest purchasers each a set of 2 eggs of the Mourning Dove.

Conditions.

The winner of the 1st to 3rd prizes, must purchase at least \$5.00 worth of the Davie eggs; 4th to 10th prizes, at least \$2.00 worth; 11th to 25th at least 50 cts. worth. To compete for these prizes only orders for the Davie eggs will count. Orders can be mailed at any time between Apr. 1st and May 15th. Prizes will be awarded May 25th and announced in June Oologist. Should a person send a dozen or more orders between Apr. 1st and May 15th it will be the total sum of all these orders that will count in the competition. In case two or more persons should send the same amount the earliest order will rank first.

All eggs will be carefully packed in strong tin or wooden boxes and sent by mail or express at our risk and (on orders of \$1.00 or over) expense. Make remittances in most convenient manner.

Address Plainly

FRANK H. LATTIN,
Albion, N. Y.

EGGS IN SETS.

All prices are for the complete set as described.

Orders under 30 cts. must contain 5 cts. additional and under \$1.00 10 cts. additional, for postage and packing.

In all cases you must name additional sets that you can use as substitutes in case the ones ordered have been sold. In case this is not done we will take equally desirable sets from our stock to fill the order, or money will be refunded.

Abbreviations.

To condense the list, the following abbreviations have been used:

ch.....chipped holes
dc.....data complete
dnc.....data not complete
F. C. O. and fco.....Franklin Co., Ohio
L. I.....Long Island, N. Y.
N.....nest accompanies set
nd.....no data
O.....Ohio
S. G. P. C. or sgpc.....San Geronimo Pass, Cal.
snc.....set not complete
?.....questionable

1-2 Wood Thrush, 3, nd.....\$.08
3-5 Wood Thrush, 4, coll. by Oliver Davie, Franklin Co. O., dnc......18
6-7 Wood Thrush, 5, coll. O. Davie, Franklin Co., O. dnc......22
8 Russet-backed Thrush, 4, Cal. nd......35
10-11 Catbird, 3, F C O ? nd......04
12-13 Catbird, 4, F C O ? nd......06
14, 16 Brown Thrasher, 3, F C O ? nd......06
19 Blue-gray Gnatcatcher, 4, S G P C dc......70
21 Black-crested Flycatcher, 2, S G P C dc......75
26 Ground Tit, 2, snc S G P C dc......1.15
27 Tufted Titmouse, 4, Clinton Co., Ind dc 1.25
28 California Bush-tit, 5, S G P C dnc......50
31 Carolina Wren, 5, coll. by O. Davie, F C O dnc......1.00
32 House Wren, 4, (1ch) Waterloo, Ind dnc......15
33 Swainson's Warbler, N.3. Ogeechee Swamp, Ga., a fine and desirable set of this rare species......6.00
36 Yellow-breast-Chat, 3, O. Davie, F C O dnc......35
37 Yellow-breast-Chat, 3, F C O ? nd......20
38 Yellow-breast-Chat, 2, F C O ? nd......14
39 Am. Redstart, 3, O. Davie, F C O dnc......80
40 Am. Redstart, N 2, nd......20
41 California (?) Shrike, 5, San Jose, Cal., dc......35
42 California (?) Shrike, 5, S G P C dc......35
43 Cedar Waxwing, 3, Lake Co., Ill. dc......25
44 Purple Martin, 3, snc St. Law. Co., N. Y. dc......35
45 White-bellied (Tree) Swallow, 4 snc, St. Law. Co. N. Y. dc, eggs dirty......35
46 Summer Redbird, 3, Athens Co. O. dc......60
47 House Finch, 4, Haywards Cal. dc......18
50-51 House Finch, 4, S G P C dc......15
54-55 Am. Goldfinch, N 4 nd......20
56-57 Arkansas Goldfinch, N 4 S G P C dc......75
58 Lawrence's Goldfinch, 5 (3 ch) S G P C dnc......60
59 Lawrence's Goldfinch, N 1 S G P C nd......30
60 Grass Finch, 4 snc St. Law. Co. dc......15
61 Sharp-tailed Finch, 2 snc, Mass. dc......55
62 Field Sparrow, 2, F C O nd......06
63 Field Sparrow, 3 F C O nd......08
64 Field Sparrow, 3 snc F C O nd......07
65 Song Sparrow, N 5, nd......12
66 Cal. Song Sparrow, 3, Marion Co., Cal. dc......20
67 Cal. Song Sparrow, 3, near San Francisco dnc......15
68 Heermann's Song Sparrow, 5, Riverside, Cal. dc......60
69 Rusty Song Sparrow, 4 (1 ch) Oregon dnc......75
70 Spurred Towhee, 4, sgpc dc......80
71 Lazuli Bunting, 4, San Bernardino, Cal. dc.50

76	Blue Grosbeak, 2 snc, Forsythe Co. N. C.	204	Am. Herring Gull, 2, St. Law. Co., N. Y.
77	de.....	nd.....	25
81-83	Nonpareil, 5, Sav. Ga. dc.....	209	Gull-billed Tern, 3snc, 1log Is., Va. dc.....
84-87	Bullock's Oriole, 4, s g p c dc.....	210-212	Common Tern, 2, L. I., N. Y. dc.....
88	Bullock's Oriole, 5, s g p c dc.....	216-218	Fulmar Petrel, 1, Iceland dc.....
90	Purple Grackle, 3 snc, L. I. nd.....	222-223	Western Grebe, 5, Devil's Lake, Dak. dc.....
91-93	Purple Grackle, 4 snc, L. I. nd.....	234	Am. Eared Grebe, 4, Cal. dnc.....
94-95	Purple Grackle, 5, L. I. nd.....	225	Black-throated Diver, 1snc, Lapland dc.....
99	Kingbird, N. 3, f c o dnc.....	227-229	Tufted Puffin, 1, Farralone Is. dc.....
101	Arkansas Kingbird, 4, s g p c dc.....	230	Cassin's Auk, 1, Farralone Is. dc.....
102	Cassin's Kingbird, 4, R. g p c dc.....	231	Black Guillemot, 2, Grand Menan dnc.....
105-107	Trall's Flycatcher, 3, fco nd.....		
108	Trall's Flycatcher, 4 (1ch) fco nd.....		
115	Chuck-wills-widow, 2, Tampa Fla dc.....		
116	Western (?) Night-hawk, 2 Beattie Co. Kan. dc.....		
119	Red-headed Woodpecker, 4, col. O. Davie fco dc.....		
120	Red-headed Woodpecker, 3, fco nd.....		
121	Red-headed Woodpecker, 4, nd.....		
122	Red-headed Woodpecker, 5, fco nd.....		
123	Flicker, 4, O. nd.....		
124	Red-shafted Flicker, 4, sgpc nd.....		
125	Red-shafted Flicker, 5, sgpc nd.....		
127	Road-runner, 5, sgpc dc.....		
128	Yellow-billed Cuckoo, 3, fco nd.....		
131	Am. Hawk Owl, 7 (1ch) Labrador. dc. The data for this set gives Labrador as the locality, but as it comes through a German dealer, we think it can be set down as the European species.....		
133	Western Red-tail Hawk, 2, Cala ? nd hand-some specimens.....		
134	Red-tail Hawk, 1snc, Mid. Co. Ct. dc.....		
135	Swainson's Hawk, 2, Los Angeles, Cala dc.....		
138-139	Mourning Dove, 2, San Diego, Cal. dc.....		
140	Ground Dove, 2, Chatham Co., Ga. dc.....		
141	Ground Dove, 2, Ga. nd.....		
142-143	Chachalaca, 2, Starr Co. Tex. dc.....		
144	Ruffed Grouse, 12 (1imp) snc, Newton Ia. dc.....		
145	Oregon Ruffed Grouse, 6, Coos Co., Oregon dc.....		
146	Texan Quail, 14, Lee Co., Tex. dc.....		
148	Wurdeemann's Heron, 3, Cape Sable, Fla. dc.....		
149	American Egret, 4, Tampa, Fla. dnc.....		
150	Snowy Heron, 3snc, Tallahassee, Fla. dc.....		
151	Snowy Heron, 4, Tampa, Fla. dc.....		
152	Reddish Egret, 3snc, Tampa, Fla. dc.....		
155	Little Blue Heron, 4, Jeff. Co., Tex. dc.....		
158	Green Heron, 4snc, L. I. nd.....		
159-162	Black-crowned Night Heron, 3, L. I. nd.....		
163-165	Bc. Night Heron, 3snc, L. I. nd.....		
166	Bc. Night Heron, 4snc, L. I. nd.....		
167-168	White-crowned Night Heron, 4, Jeff Co., Tex. dc.....		
169	Glossy Ibis, 4, Russia dc.....		
170	Golden Plover, 4, Iceland dc.....		
171	Golden Plover, 4 (1ch), Scotland dc.....		
172	Ringed Plover, 4, Iceland dc.....		
173	Ringed Plover, 3, England dc.....		
175	European Woodcock, 4, Sweden dc.....		
176	English Snipe, 3snc, Eng. dc.....		
177	Willet, 4, Beau, Co., S. C. dc.....		
178	Long-billed Curlew, 4, England dc.....		
180	Sora Rail, 4, Comal Co., Tex. dc.....		
181	Sora Rail, 13snc, Hen. Co., Minn. dc.....		
183	Pintail, 7 (2ch), Lapland dc.....		
186	Widgeon, 7, 1 brk., Iceland dc.....		
187	Shoveller, 3, Russia dc.....		
188	Blue-winged Teal, 11 (1ch), Devil's Lake, Dak. dc.....		
189	Am. Golden-eye, 7, Russia dc.....		
191	Elder, 4, Finland, dc.....		
192	Am. Sheldrake, 10, Norway dc.....		
197	Brandt's Cormorant, 4, Farralone Is. dnc.....		
200	Glaucous Gull, 2, Greenland dc.....		
201	Gt. Black-backed Gull, 2, Sweden dc.....		
202	Western Gull, 3, Farralone Is. dc.....		
203	Herring Gull, 2snc, Eng. dc.....		
204	Am. Herring Gull, 2, St. Law. Co., N. Y.		
209	Gull-billed Tern, 3snc, 1log Is., Va. dc.....		
210-212	Common Tern, 2, L. I., N. Y. dc.....		
216-218	Fulmar Petrel, 1, Iceland dc.....		
222-223	Western Grebe, 5, Devil's Lake, Dak. dc.....		
234	Am. Eared Grebe, 4, Cal. dnc.....		
225	Black-throated Diver, 1snc, Lapland dc.....		
227-229	Tufted Puffin, 1, Farralone Is. dc.....		
230	Cassin's Auk, 1, Farralone Is. dc.....		
231	Black Guillemot, 2, Grand Menan dnc.....		

Single Eggs.

The figures in the first column at the left give the number of 1st-class single eggs in the collection. The second column, the number of 2d-class ones.

The prices quoted are for a single 1st-class specimen of the species named.

Where we have 2d-class specimens, we will sell them for *one-half* these prices.

Orders under \$30c must contain 5c. and under \$1.00, 10c. additional for postage and packing. Over \$1.00 will be sent prepaid.

Always name additional specimens that can be used as substitutes in case we should be out of those most desired at the time of receiving order. In case this is not done we will take equally desirable specimens from our stock to fill the order or will return your money.

15	1	Wood Thrush.....	.62
4	11	Robin.....	.01
20	2	Mockingbird.....	.03
7	3	Catbird.....	.01
12	3	Brown Thrasher.....	.01
4	Cal.	Bluebird.....	.05
10	5	Blue-gray Gnatcatcher.....	.12
5		Cactus Wren.....	.07
4		Prothonotary Warbler.....	.20
1		Golden-winged Warbler.....	.30
8	2	Parula Warbler.....	.10
10	7	Yellow-breast Chat.....	.04
	8	Redstart.....	.06
	5	W. Warbling Vireo.....	.08
	3	Bell's Vireo.....	.08
	4	White-rumped Shrike.....	.66
	8	Cliff Swallow.....	.62
	10	Barn Swallow.....	.01
	5	Scarlet Tanager.....	.10
	9	House Finch.....	.03
	5	Am. Goldfinch.....	.03
	1	Ark. Goldfinch.....	.12
	2	Gambel's White-crowned Sparrow.....	.16
	7	Chipping Sparrow.....	.02
	4	Field Sparrow.....	.62
	25	Song Sparrow.....	.01
	3	Spurred Towhee.....	.15
	4	Canon Towhee.....	.18
	9	Cal. Brown Towhee.....	.06
	5	Cardinal Grosbeak.....	.63
	8	Black-throated Bunting.....	.64
	12	Indigo Bunting.....	.03
	16	Cowbird.....	.01
	20	Red-winged Blackbird.....	.01
	4	Meadow Lark.....	.65
	8	W. Meadow Lark.....	.05
	3	Orchard Oriole.....	.63
	5	Baltimore Oriole.....	.64
	5	Bullock's Oriole.....	.65
	10	Purple Grackle.....	.03
	11	Florida Grackle.....	.05
	10	Bronzed Grackle.....	.03
	15	6	Crow.....
	5	1	Florida Crow.....
	4		Blue Jay.....
	2		Cal. Jay.....
	6		Kingbird.....
	5	1	Ark. Kingbird.....
	8	4	Trall's Flycatcher.....
	10		Red-headed Woodpecker.....
	43	3	Flicker.....
	4		Red-shafted Flicker.....

4	Road-runner.....	13
2	Yellow-billed Cuckoo.....	06
2	Cal. Screech Owl.....	40
3	Western Great Horned Owl.....	1.00
8	1 Fish Hawk; Osprey.....	30
2	2 Red-shouldered Hawk.....	25
4	Swallow's Hawk.....	50
2	Turkey Buzzard.....	35
15	Mourning Dove.....	02
12	California Quail.....	06
6	Great Blue Heron.....	15
42	Black-crowned Night Heron.....	05
5	Mallard.....	10
75	7 Common Tern.....	03
2	Western Gull.....	20

Birds' Nests.

If ordered by mail, add 5c additional for postage and packing on each nest, except Red-winged Blackbird for which you must add 10c and Crow Blackbird 20c; all others 5c.

The number at right tells the number of nests we have in stock; and the price is per single nest. **Order quick.**

Always name substitutes:

2	Phainopepla.....	\$.10
2	Parula Warbler.....	10
2	Yellow Warbler.....	.05
1	American Redstart.....	.05
1	Warbling Vireo.....	10
1	Red-eyed Vireo.....	.05
1	Summer Redbird.....	10
2	Am. Goldfinch.....	.05
2	Arizona Goldfinch.....	.05
1	Yellow-winged Sparrow.....	10
1	Field Sparrow.....	.05
1	Song Sparrow.....	.05
1	White-eyed Towhee.....	15
1	Blue Grosbeak.....	15
3	Indigo Bunting.....	.05
1	Nonpareil.....	10
3	Red-winged Blackbird.....	.05
2	Orchard Oriole.....	10
1	Crow Blackbird.....	.05
1	Scissor-tailed Flycatcher.....	10
1	Pewee.....	.05
4	Trall's Flycatcher.....	.05

Address FRANK H. LATTIN, ALBION, N. Y.

SAMPLES.

For the convenience of our patrons we have arranged the following sets of samples, any of which will be sent prepaid upon receipt of price:

Trays, 4 sizes.....	05
Cotton for lining trays and cabinets six samples, 2 grades, 4 colors.....	03
Gummed Labels, useful for any business, 10 styles.....	03
Tags, 4 styles.....	02
Datas, Labels and Blanks, sheet of 20 Samples.....	02
Checking List, contains names and numbers, both Ridgeway's and A. O. U.,.....	02
Cork, 3 grades.....	03
Insect Pins, 8 sizes.....	03

We will send all the above samples, if ordered at one time, for only 20 cts.

FRANK H. LATTIN,
Albion, N. Y.

In order to close out our stock of Handbooks and Directories, we will, for the next SIXTY DAYS, send a copy of either prepaid for only 15 CENTS, or a copy of both for only 25 CENTS.

— THE — OOLOGIST'S HANDBOOK,

CONTAINS

86 Pages of Valuable Information.

It gives our regular price list of oölogical specimens and supplies (the most complete ever sent out by any dealer). It gives the common and scientific names of all North American birds, arranged and numbered according to Ridgeway's (the Smithsonian) nomenclature of 1881; it gives the numbers used in Baird's check-list of 1859 and those used in Coue's of 1883; it gives the value of the eggs of over 500 species of North American birds, this fact alone making the catalogue invaluable to collectors as a basis of exchange. It names the various families into which the birds of North America are divided, and enumerates the birds belonging to each family. It gives, approximately, the number of eggs in a clutch of every American bird. It tells how to prepare specimens for cabinet, how to pack them for transportation, with many other useful hints. A copy of our new handbook and catalogue will be sent postpaid for

— ONLY 25 CENTS. —

or we can furnish the HANDBOOK bound in cloth and gilt for 50 CENTS.

— ADDRESS —

FRANK H. LATTIN,
ALBION, Orleans Co., N. Y.

The Oologists' Directory

By DAVIS & BAKER.

Is now ready for delivery and contains the names and addresses of over four hundred collectors of Oölogical, Ornithological, and Taxidermal specimens, and twenty-one pages of advertisements of the leading dealers.

This Directory is the Best and Cheapest

ever offered collectors, and is worth double the amount for which it sells.

It is printed in good, suitable type, on heavy tinted paper, and bound in antique Japanese covers.

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ONLY THIRTY CENTS.

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Frank H. Lattin,
WHOLESALE AGENT,
Albion, New York.

FOR THE NEXT 30 DAYS!

We have concluded to offer Birds' Eggs at an

Unparalleled Reduction

in prices.

We advertise that we we will not be undersold. We have an established reputation for handling specimens of an extra grade at prices lower than those of any other reliable American dealer.

For the past few months parties have tried to prove that the above statement was untruthful. Now, as we actually carry the largest stock of Birds's Eggs in America, we own the building in which we transact our business and consequently have no rent to pay. Warm weather is at hand so that it will require neither wood nor coal to heat our building. The days are getting of sufficient length so as to enable us to fill all orders by daylight. Taking all these facts into consideration, we find that our running expenses are comparatively very light, and have concluded that in order to reduce stock, we will, for the next thirty days, fill all orders for Birds' Eggs at

ONE-HALF PRICE.

Our regular prices are quoted on the last page (78) and in the Sept. *Bulletin*, following.

Remember we send you any egg we advertise at $\frac{1}{2}$ the prices quoted. For example, at this reduction you can purchase eggs of the Wood Thrush for 2c; Robin, 1c; Mockingbird, $2\frac{1}{2}$ c; etc., etc. throughout the list. This offer applies to all single eggs except Ostrich, Emeu and Cast of Great Ank. These eggs and eggs of any species when desired in sets with original data, we can allow only 25 per cent. discount from prices quoted.

This offer of selling eggs at one-half price expires May 1st.

Orders amounting to less than \$1.00 cannot be accepted at this great reduction.

All eggs sent at our risk and expense.

Orders of \$5.00 we will put in 40c worth of eggs extra; of \$10.00, \$1.00 worth; of \$25, \$3.00 worth; and of \$50, we will put in \$10 worth. These eggs are to be figured at regular rates.

You may never have another opportunity to purchase first-class eggs at so great a reduction. It will pay you to send in your orders early and often. Big ones too.

Easter, collecting and exchanging season is here, and any collector can more than double his money within 30 days on eggs at these prices.

Make out your order at once and forward it before it is too late, to

FRANK H. LATTIN, Albion, Orleans Co., N. Y.

N. B.—At these low prices Dealers must purchase at the same prices we are making collectors.

THE OOLOGIST.

Vol. VI,

ALBION, N. Y., APRIL, 1889.

No. 4

The Raptores of Michigan.

BY SCOLOPAX, KALAMAZOO, MICH.

Elanus leucurus (VIEILL.) White-tailed Kite; Black-shouldered Kite.

This is a rare species as a Michigan bird and I feel uncertain about recording it here, but cannot well ignore the species when it is entered in lists of Michigan birds.

Dr. H. A. Atkins, an observer for over a quarter of a century at Locke, Ingham Co., Mich., wrote me shortly before his unfortunate taking off, that this species was "a rare summer resident" in his neighborhood. A. B. Covert, of Ann Arbor, this State, in his list "Birds of Washtenaw County, Mich.," says: "A very rare straggler from the south; two specimens taken." It is on these authorities that I embrace this species in this list.

Circus hudsonius (LINN.) Marsh Hawk; Marsh Harrier; Harrier.

This is an abundant species in many sections of the State where suitable territory can be found. In many quarters of Michigan, forests are too dense and large, and where clearings do exist, the nature of the surface is not of that character appreciated by the Harrier. However, locality seems to have much to do with the preference of the birds, entirely aside from the nature of the surface. For example, there are many sections of our State where the surface is apparently exactly suited to the Marsh Hawk, where an individual is never or rarely seen. This bird was embraced by Dr. Sager in his pioneer list of Michigan birds in 1839, and has been recorded by nearly all lists since. Thus far, no lists or authority from the upper peninsula, that I can learn of, lists this species, nor did I find it there. It, however, is found undoubtedly, at least to a limited extent north of the Straits of Mackinaw as it is found in the British possessions.

March 10 is my earliest recorded arrival

in the southern part of the State, and the birds generally are not seen before the 15 or 20 of that month and sometimes, in late seasons, I believe even later. Our first knowledge of their presence as well as our last record of them about November 10, is by seeing one sailing across a field with that gentle undulating motion so characteristic of the species. Perhaps it is a marshy tract over which the new arrival wends his way, and this more probable if the mercury is much below the freezing point, from the reason that the small mammals are moving earlier in the spring than those of the dry upland fields, and especially are they more active on a cold day than their relatives of greater altitudes. I have especially noted that this bird when inclined to hunt about the fields and uplands, invariably selects southern slopes of hills in cold weather, thereby gathering a greater harvest than would be found on the northern slope, where the small mammals keep within their holes. About May first to tenth the birds begin to pair, that is, go through all of the extravagant manifestations of the spring alliance, usually common to birds in this quarter. I am aware that the Raptores are generally supposed to be mated for life, and do not doubt it, but certain I am that birds that I have observed, of several different species of hawks are given to great demonstrations each spring. At this time the male makes a peculiar cry or scream and is not infrequently answered by the female. The scream uttered is a *ky yi*, something like a small dog's alarm when alarmed, and is almost continuous for a minute or so by turns. The note is less harsh than that of any of the hawks. The scream is not uttered while the bird hunts.

The nest is placed, always, so far as I am able to learn, in a marsh on a hummock of from one to three feet elevation above the surrounding surface. Generally a good deal of water has to be waded through

often two feet deep, in order to reach the eggs. The nest is hollowed more than the structures of most of the hawks, and varies in size, probably from the additional material added, as the nest may be occupied several successive years. The eggs, four, five or six in number, more often five, are usually laid about May twentieth, and are of a dirty light blue color and not rarely blotched with obscure markings of brown. Many writers speak of the eggs as blotched in the majority of instances. This is, however, I think more from their inability to distinguish between natural markings and those acquired from contact with the wet grass composing the nest. The eggs closely resemble those of the Cooper's Hawk; are not always distinguishable even by an expert. The eggs of this species, as also of those of Cooper's Hawk are not rarely palmed off on the unsuspecting as eggs of the Goshawk *A. atricapillus*, and I should advise all to beware of impostures of this nature.

Accipiter velox (WILS.) Sharp-shinned Hawk.

This species is not known to many collectors in many parts of our State during summer, and is in fact, I think, only transient in spring and fall south of 43 degrees north latitude. In only one case have I heard of the species breeding in the State. This apparently almost invariable migration throughout northern tiers of counties, may, perhaps, be a result of an oversight on the part of our collectors, but it is hardly probable, as we are acquainted with the habits of species of the raptore much less common than this species.

The little blue-winged hawk or Pigeon Hawk as it is often called, may be taken on our southern borders as early as March tenth in the spring migration, and from September first during the three autumnal months in its southern journey. It undoubtedly is found in the State during every month of the year, as I have met with it in December and have seen a small hawk, which could hardly be of any other species,

in January. One* which I came into the possession of was making havoc among the persistent English Sparrows in the center of the city.

Having never met with a nest of this species, although thorough search of twenty years duration has been my lot, I cannot speak of its habits in this respect, having to content myself with an uncertain study of its manners during migration. Mr. F. A. Norton, of Ypsilanti, has found two nests of one pair of birds. These were placed in ash trees about thirty feet from the ground and were constructed much after the manner of the Cooper's Hawk, but were not so large.

The eggs of this species are among the most beautiful of hawks' eggs and are well worthy of the efforts of an ambitious climber. They are a dirty white in ground color, sometimes of a bluish tinge and are generally beautifully blotched and marked with dark reddish-umber, and usually in greater abundance at the larger end, but sometimes at the smaller end. Often there is a ring formed about the egg and not rarely the blotches are entirely confluent.

Accipiter Cooperi (BONAP.) The Cooper's Hawk.

This active, audacious hawk is well known in our State and under a variety of names but to the large majority of people it is called chicken hawk, blue-backed hawk and pigeon hawk. The last two names being also given to the sharp-shinned congeners and, as is often the case, being misapplied in both instances. The pigeon hawk, very rare here, being a true falcon, while the local species of the genus *accipiter* are true hawks. There is nothing in a name, as many will insist, however, to which I will add, true enough in English names. Allow me to say here, therefore, that it is the best advice to those interested in any department of natural history, when told to learn a scientific nomenclature, and to adhere to it at all times when writing or talking, thereby avoiding many errors and misunderstandings, sure to arise if the old common local names are used.

*I wish there were more of them.

It would be difficult to say when the first spring Cooper's Hawk makes his appearance as all do not go south each fall. I have met with this species in Southern Michigan during every month of the year. In December they are often far from rare, and may even be seen not infrequently about the edges of the city. They sometimes venture to the very centers of our crowded squares in pursuit of the ubiquitous English House Sparrow. At these seasons the swift hawk is seen gliding about our yards, dipping down nearly to the earth and again rising to the level of the fences or hedges, always active and ever on the alert for prey or danger. These incursions into the city are only made at early morning when few are stirring and are seldom or never observed during summer, but rather in early winter. The Cooper Hawk appears common about April tenth and perhaps this may be taken as the height of the vernal migration of those which spend the winter south of us.

The nesting season begins in late April and extends into June. The nest construction occupies the pair nearly ten days; much of this time, however, being occupied in flying about, apparently in an aimless manner as during the recent mating season. The nest is ready for the eggs about May first, but much earlier dates are recorded; April 22 ranking first hereabouts I believe, while records of fresh sets date as late as May 29. The nest, hereabouts, is generally built in the white or black oak *Quercus alba* or *Q. coccinea*, but not rarely it is found in the common beech. The birds usually select the highest lands for their breeding purposes and this explains why the nests are so often found in oak trees. The nest is quit a bulky affair for the size of the bird and is probably augmented in size from year to year by the successive nestings, which certainly do occur in some instances.

The eggs, dirty blue or more properly, perhaps, light, dull blue, hardly need description here, as they are so well known. Sometimes only two eggs are found in a

nest, but generally occurs late in the season and probably occurs as a result of a second nesting where pair was robbed of the first set. The usual number is four but often only three, and in rare instances five eggs are found. The Cooper's Hawk is an audacious robber of the farm yard poultry, but confines itself to half-grown fowls. It is quite retired in its habits and its nests are not readily found, and are not generally seen except by accidental discovery.

Accipiter articapillus (WILS.) American Goshawk.

A rare winter resident. I have never seen but one alive. This captive was owned and captured near Cadillac, Michigan, about 44 degrees, 30 minutes north latitude. I was assured that the bird was taken from a nest while young, in that immediate vicinity. The species is not generally known to be a resident of our State, but only as a rare straggler to our southern boundaries.

The eggs of this species are said to very nearly resemble those of the Cooper's Hawk and an imposition may be and undoubtedly is frequently practiced on the unsuspecting oological collector who is not sufficiently exacting as to identification.

How to Retain the Natural Color of an Egg.

In looking over an article by the Rev. J. G. Wood I found something very interesting, as well as instructive, and thinking it might be of interest to some of the readers of the OOLOGIST, I send it to you. It is a preparation for restoring the pinkish cast which so many eggs lose when blown, and which destroys much of the original beauty:

Make a glass tube like that which is used in emptying the eggs, but let the aperture be larger. Heat some white wax, and while it is hot and liquid mix it with carmine and gamboge, taking care to make the mixture several shades deeper in hue than the egg is required to be externally. Warm the egg, heat the pointed end of the glass tube, and suck up some of the colored

liquid into it. You will not want much of the liquid as it would interfere with the transparency of the egg. Blow the wax into the egg, hold it over a spirit lamp or in front of a fire, and keep turning the egg about until you can see the color appears in every part of it. Then remove it gradually from the heat, still continuing to turn it about, and in a very short time it will cool, and the coating of wax will be uniformly distributed over the interior.

The process is rather a tedious one, but the effect is so admirable that no one who tries it will regret the expenditure of time and trouble. Hoping this will interest some of the readers of the *OOLOGIST*, I am oologically,

R. S. C., JR., Owings Mills,
Balto. Co., Md.

Repairing a Nest of the Black-capped Chickadee.

On the 14th of April, 1888, while out collecting, my attention was attracted to a small hole in the side of an old rotten stump. I broke the hole open and was vexed to find a nest made of moss and hair but no eggs. Without thinking I pulled the nest out and pulled it apart. Just then the owner, a Black-capped Chickadee, came flying toward me and I was more vexed to think I had spoiled the nest.

A thought struck me. I took my knife and cut a large piece of bark, large enough to fit over the place I had broken. I then put back the moss and hair, tied the bark over the hole and cut a small hole in the top and left it.

Two days later I returned and rapped on the stump. Out flew a Chickadee and up I went to the hole. Tearing the bark off I found two little eggs; they were pure white, specked at the larger end with light reddish-brown.

This find was one of the most pleasing discoveries I have had this season.

W. E. L., Peoria, Ill.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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ALBION, Orleans Co., N. Y.

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In order that our adv. may not be misleading we would here state that Mr. Oliver Davie has been a dealer in oological specimens and supplies; but in order to devote his whole time to his Great Works and his pet hobby—taxidermy, he sold his entire stock. This, as we understand it, does not include a very fine private collection.

Important.

You have been selected to act as one of the judges in the Prize Article contest, which includes all articles of over 100 words that appeared in the *OOLOGIST* from May to November, 1888., including the issues of both these months. It has been found too much of a job for any one or two persons to make the decision and be willing to shoulder the responsibility.

Therefore, the publisher of the *OOLOGIST*

has thought it best to ask *you* to act as one of the judges. Write on a postal card, at any time before April 20th, the titles of the three articles which *you* considered the *most valuable, instructive, and interesting* in the OOLOGIST which appeared in the 1888 issues, May to November, inclusive.

Send in your postals at once, as the result must be announced in the next OOLOGIST. The writers of the two articles receiving the greatest number of votes will receive \$5.00 worth of Job Lots; the next two will receive \$3.00 worth; and the next two \$2.00 worth.

We think the competitors will agree with us in thinking the most fair method of making the awards.

Prize Contest.

The following were the lucky winners of the prizes awarded the purchasers of Davie's Eggs. Contest closed March 15th and prizes awarded to the lucky winners on March 25th. Every contestant received a prize, and 35 prizes were not taken on account of lack of contestants:

1	Walter Raine, Toronto, Can.	\$27.34
2	Geo. Schoen, Kansas City, Mo.	17.00
3	F. E. Shoup, Sewanee, Tenn.	12.45
4	Chas. E. Doe, Providence, R. I.	12.00
5	Salome Oldershaw, Brooklyn, N. Y.	3.88
6	Will A. Moore, Norwalk, Ohio.	3.35
7	A. Kennedy Ashworth, Pittsburg, Pa.	2.00
8	Everett G. Duncklee, Brockton, Mass.	2.00

Not enough orders amounting to \$2.00 or over were received to take prize Nos. 9 to 25.

26	Eddie O. Fero, Cohoes, N. Y.	1.70
27	Wm. I. Comstock, Norwalk, Conn.	1.26
28	R. H. Douglas, Burlington, Kan.	1.25
29	Will Roberts, Ottawa, Kan.	1.20
30	Maurice Smith, Ohio, Ills.	1.10
31	L. O. Dart, Litchfield, Minn.	1.10
32	S. C. Crump, West Bay City, Mich.	1.05
33	D. W. Raymond, Norwalk, Conn.	1.05
34	F. A. Benson, Burlington, Ia.	1.04
35	R. H. Moth, Kenosha, Wis.	1.00
36	S. A. Taft, Aiken, So. Car.	1.00

Not enough orders of \$1.00 and over to take prizes 37 to 40.

41	Geo. L. Alverson, Marengo, Ia.	.90
42	C. J. Mitchell, Shelbyville, Ky.	.88
43	Heyward Long, Martins Ferry, Ohio.	.80
44	Arthur F. Stone, St. Johnsbury, Vt.	.88
45	John Williams, Wenham, Mass.	.69
46	P. H. Hadlock, Wenham, Mass.	.68
47	Geo. M. Lincoln, Malone, N. Y.	.65
48	C. H. Remington, Brooklyn, N. Y.	.60
49	C. B. Aiken, Vineland, N. J.	.51

Not enough orders of 50c and over were received to capture prizes No. 50 to 60.

From "Old Virginny."

I have read with the greatest interest the articles on birds from nearly every State, but noticed that few, if any, were from "Old Virginny." Therefore, I will write a short article, with the hope that it will not escape the waste basket, from this section.

The first birds that breed here are the Hawks, Owls and Crows; next come the *Picidae*; Nuthatches are among the first. But I feel constrained to stop here and relate the experience of a pair (or rather our experience with them) that built in our school yard: I located the nest on April 7th, and on April 12th climbed up to take the eggs. We had the misfortune to break the only egg in the nest, while enlarging the hole in the tree large enough to admit my hand. After waiting five days longer we took a set of three eggs, and five days after, another set of 3 eggs, but still they stuck to their nest; so our better natures appealing in their behalf, we allowed them to hatch and rear four young ones unmolested. Making the whole number of egg laid by one pair to be eleven. Is not this a rare occurrence? There are not many birds that breed in April, but in May every bird builds its nest; the greater part in the latter part. I took two sets of Whip-poor-will's eggs on May 25th, which is a lucky occurrence in this section, for they are very rare. If I would take every Catbird, Robin and Sparrow's nest I find, I would have enough to stock the State. Scarlet Tanagers arrived here about two or three years ago and are now very plentiful.

SAMUEL PARSONS, JR., Louisa C. II., Va.

Nesting of the Tufted Tit.

(*Lophophanes bicolor*.)

BY J. WARREN JACOBS, WAYNESBURG, PA.

This active little fellow is known in this locality as the Tom Tit. In winter they seem to be quite tame, and will allow a close approach.

During the winter of '82 one entered our kitchen through a broken pane of glass in the window. They seem to go in pairs, the year around, and in winter and early spring they are not uncommon in most portions of our town. They may be seen swinging from twig to twig in the maple and other ornamental trees that border on the pavement, or hopping about the ground hunting seeds and crumbs. Always paying no attention to the crowd of enraged and scolding English Sparrows, who seem to think the trees and gardens all their own.

As the winter wears away, Owl and Hawk nesting comes; and as I tramp through the woods paying my respects to these birds of prey, the Tufted Tit is ever with me, making his presence known by his cheering notes, or by scratching and digging in the leaves, after the manner of the Towhee Bunting.

By and by Tom and his wife go to house-keeping. First they investigate all the old "snags," "stubs," knotholes and the deserted homes of the Woodpecker. After finding suitable nesting place, they gather leaves, grass, fur, wool, moss etc., and pile it in a mass on the bottom of the cavity. Upon this they construct a neat cup-shaped nest of leaves, grass and hair.

On May 13, '88, I was out collecting, and after passing through two large pieces of woodland, was returning home by the nearest route, which lay through a very small tract of timber. When about half way through, I heard the scolding notes of the Titmouse a few rods in advance. Presently a pair of these birds approached us, coming from the vicinity of a small oak "snag" about 15 feet high. On examination, I found it would be hard to "shin," as there was but one branch, and it a small half

dead one near the top. After some difficulty I managed to get hold of the limb and draw myself up. Imagine my delight when I peeped down into the cavity and counted six beautiful eggs.

A friend who was with me passed me up the hatchet with which I cut off a good portion of the top. Then I proceeded to take out the eggs, which to my surprise numbered *seven* instead of six. The wall of the nest had at first hidden one from view. The nest was made of leaves, fine strips of bark and a small amount of fur and moss. The eggs were perfectly fresh and are white with a slight roseate tinge, covered, mostly at the larger end, with bold blotches and spots of reddish brown and lilac. Measurement, .67 by .54, .68 by .53, .68 by .55, .69 by .54, .70 by .54, .70 by .54 and .69 by .54.

On the afternoon of the 14th I was out searching for a nest of the White-breasted Nuthatch, when I saw a pair of Titmice feeding near a small oak stub which was hollow at the top. As this was the same cavity in which I found, in '87, a nest containing three eggs of the Titmouse and one of the Cowbird, I thought it would be to my interest to examine it again.

Upon climbing up and looking down into the cavity I could see a set of six beautiful eggs. Thinking it possible the set incomplete, I left it a few days. When I returned on the 16th, I found the old bird sitting on the eggs. No amount of threatening and face-making would induce her to leave; so I put my hand underneath her and lifted her out. The nest contained the same number that it did on the 14th. They were fresh and in color, size and shape closely resembled the set of six collected on the 13 h.

The nest was made of leaves, grass, fine strips of bark and a small amount of hair and moss, eight feet from the ground.

The next nest was found on May 18, composed of leaves and hair, placed in cavity in dead beech, twelve feet from the ground. The cavity was in the side of the tree and was excavated by the birds themselves.

The eggs are six, pure white, with fine spots of reddish brown and lilac scattered

over the entire surface, but most thickly at the larger end. Measurement, .73 by .53, .71 by .54, .73 by .54, .73 by .54, .74 by .54 and .74 by .53 in.

My fourth set was collected on the 19th, same month. It also, contained six fresh eggs, very much like the preceding set in size and markings. The nest was made of leaves, grass, bark and some fur, placed in natural cavity in top of dead oak stub, twenty feet from the ground.

My fifth and last set was also collected on the 19th. It contained four eggs, white, with a very slight creamy tinge, marked with fine reddish brown specks about the larger end, with lilac scattered evenly over the whole surface. The average size is .70 by .54 in. The nest was placed in hollow "stub," fifteen feet from the ground, and was made of leaves, grass etc.

Peculiarities in Sets and Eggs of a Few of Our Commoner Birds.

Lately there have appeared several articles on peculiar eggs and sets, and I wish to add my mite.

About 1877, I went with an older collector to a swamp not far from Marietta, Ohio, and among others, we found a set of Red-wing Blackbird, one egg of which was a runt. It contained an embryo, however, but was so cracked in blowing that I can only approximate its size; it is about .42 x .50.

Either the Red-wing is more addicted to laying odd eggs than other birds, or its abundance brings such cases oftener to our notice, for almost every oologist can show some freak of this kind. I have two sets, one of four eggs, all which are unspotted, and another set of seven, of which three were probably laid by one female and the rest by another: for there is great difference between the two lots, and the four were almost hatched when taken while the others were beginning to addle.

White Robin and Bluebird eggs are so frequently reported that I will merely say I have found both.

Passing over a runt egg of the Goldfinch

measuring .35 x .40, and a set of seven Purple Grackle, I came to a set of four Crow's that is very similar to "Aye Caye's" in the Jan. OOLOGIST; Nos. 1 and 2 correspond perfectly; No. 4 only lacks the large blotch, but No. 3 is just like No. 1., and only measures 1.10 x 1.45.

Last year I found a Brown Thrasher's egg in a Crow nest, but from appearances, I judged some small boy had put it there. It was added, while one of the Crow eggs was pipped.

Large sets of Flicker eggs are so common that one of 24 barely deserves mention, and the same holds good of unspotted eggs of the Red-shouldered Hawk; but albino egg of Wilson's Tern is quite a rarity; I took mine last year, on Gull Island, N. Y.; there were three eggs in the nest, and the other two were of the usual type.

I would say in reply to W. J. S., in the Dec. No., that in the two cases that I observed of albinism in the Bluebird eggs, the parents were unusually brightly colored.

C. R. H., New London, Conn.

White-rumped and Loggerhead Shrikes The Difference.

EDITOR OF THE OOLOGIST:

C. B. C., of Otin, Ill., wishes to know through the columns of the OOLOGIST, the difference between the White-rumped and Loggerhead Shrike. Perhaps, the following taken from a comparison of both species may be of use to him:

The most noticable difference, and the one of greatest importance, is the *white rump* feathers of the White-rumped Shrike, which are *gray* in the Loggerhead species; again, the entire underparts of the former are nearly white, while in the latter species, they are light gray. The Loggerhead Shrike has a larger bill, but as a rule shorter wings and tail than its white-rumped cousin, for these birds are certainly closely related, and I have no doubt that there are birds in certain stages of plumage so closely resembling both species as to cause the best ornithologists to scratch their heads before separating them.

Respectfully yours, S. W. DENTON.

Birds of Grafton Co., New Hampshire.

I was greatly interested in the article entitled "Birds of Broome Co., N. Y.," and thought some readers of the OOLOGIST might be equally interested in a short account of the birds of Grafton Co., N. H., and I heartily second Mr. Clute's suggestion that the readers of the OOLOGIST should send in an account of the birds of their county for publication. I, therefore, undertake to interest the readers of the OOLOGIST by an account of the birds of Grafton Co., N. H.

This county is a very good field for ornithologists on account of its physical features. Although there are few aquatic birds, yet this absence is hardly noticed on account of the abundance of land birds. But occasionally there is seen a Loon, Wild Goose and Wild Duck. Of the birds of prey are more the Pigeon Hawk, Sparrow Hawk, Marsh Hawk, Red-shouldered Hawk, Sharp-shinned Hawk, Cooper Hawk. While the Brown-winged Hawk and the Gyrfalcon are not uncommon.

Among the Owls we have the Short-eared Owl, Long-eared Owl, Barred Owl, Hawk Owl, Screech Owl and the Great Horned and the Great Gray Owl are often seen.

The Thrush family is well represented in the Wood Thrush, Hermit Thrush, Tawny Thrush, Olive-backed Thrush, Brown Thrush, the Robin and the Catbird.

All the Warblers are very common except the Black Burnian, Prairie and the Cape May Warbler. The latter is rarely seen.

Of the Swallows, the Barn, Cliff, Bank, and White-bellied are very common; and the Purple Martin is not rare.

The Belted Kingfisher is common along streams, in the sandy banks of which it nests. The Crow and Blue Jay are very abundant, and do great damage in the corn-field. This applies principally to the former.

The Yellow-shafted Flicker, Hairy and the Downy Woodpecker are the most common of their family and sometimes the Pileated Woodpecker is seen: but this

species can only be counted as a stranger.

The Flycatchers are quite abundant, the Pewee often nesting in verandas, and are quite tame. The Kingbird, however, greatly outnumbers the others.

The Hummingbirds have only one representative: the Ruby-throated, which is seen in almost every garden.

English Sparrows are too abundant, for we could well dispense with half their number. All other Sparrows are common except the Fox-colored, White-throated and White-crowned; these appear only as migrants.

The Grosbeaks and Purple Finch are some years very abundant while again they will be very rare.

Bluebirds are among the first of our Spring visitors.

This year the Snow Buntings are very common and flocks of fifty to a hundred are frequently seen.

The Snowbird seems to have fallen off in numbers since last year. The Nuthatches are not very common. Perhaps none of our birds meet with more favor here than the Red-eyed Vireo. It is of great use to the farmers, and its industrious and cheerful disposition secures for it the good will of all. The other Vireos are not so common as the Red-eyed, but the White-eyed, Warbling and Yellow-throated Vireo are well represented.

The Great Northern Shrike, White-winged Crossbill and the Red Crossbill are among the most common of our Winter friends, though these are quite rare.

The Baltimore Oriole, Rusty Blackbird, and Crow Blackbird are quite common, and the Orchard Oriole is a possible resident in Summer.

Chimney Swifts are very common, and large numbers may be seen circling around the chimney tops on warm Summer evenings.

The Yellow and Black-billed Cuckoos are quite rare.

I hope other readers of the OOLOGIST will follow Mr. Clute's suggestion and send in reports of their feathered friends. A great deal of valuable information would thus be gained and it would be of no little interest.

MAURICE S. SHERMAN. Hanover, N. H.

Davie's New Egg Check-List, 3rd Edition

is now promised about May 1st. Over 300 pages are now printed. The work bids fair to contain fully 500 pages; and the price unquestionably will exceed that of \$1.00, and possibly may run up to \$2.00, but we will take advance subscriptions at the low price of \$1.00.

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Below and on the next page we copy the articles on the Murre and Western Grebe from advance pages of this invaluable work:

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30. *Uria troile* (LINN.) [763.]

Murre.

Hab. coasts and islands of the North Atlantic, southward on the coast of North America in winter to Southern New England; breeding from Nova Scotia northward.

Like all of the Auks, Murres and Puffins, this species is eminently gregarious, particularly in the breeding season. It is found in great numbers throughout the Arctic Ocean and on nearly all the islands north of Asia, Europe and America. On this side of the Atlantic it breeds from Nova Scotia northward.

Tens of thousands of these birds congregate to breed on the rocky islands, depositing and incubating their single egg close to one another on the shelves of the cliffs. The birds sit side by side, and although crowded together, never make the least attempt to quarrel. Clouds of birds may be seen circling in the air over some huge, rugged bastion, forming a picture which would seem to belong to the imagination rather than the realistic. They utter a syllable which sounds exactly like *murre*. The eggs are so numerous as to have a commercial value, and are noted for their great variation in ground color and markings. They vary from white to bluish or dark emerald-green in ground color; occasionally unmarked specimens are found, but they are usually handsomely spotted, blotched, lined in various patterns of lilac, brown and black over the surface. In some the markings are confused zigzag lines that look like hieroglyphics. The eggs are large for the size of the bird, measuring from 3. to 3.50 long by 1.95 to 2.10 broad; pyriform in shape.

1. *Aechmophorus occidentalis* (LAWR.) [729.]

Western Grebe.

Habitat. Western North American.

This is the largest of the Grebes in North America. Its distribution extends from Mexico and Lower California on the south, to Washington Territory and the Red River region on the north, breeding nearly throughout this entire range.

A common summer resident at Utah Lake and also at Lake Malheur, in Eastern Oregon, thence eastward to the extensive marshes of Shoal Lake, in Manitoba, where it breeds abundantly.

Mr. Edward Stebbins found it breeding in an arm of Devils Lake, Dakota, in the first part of June, at which time all the eggs were more or less incubated. He estimates the numbers of nests observed to be about two hundred in an area of an acre and a half. They were built in water three or four feet deep, and were made of reeds and sedges matted together and fastened to the tall, rank grass, so as to float on the surface.

It is a remarkable fact that the Grebes cover their nests with weeds and other vegetable matter before leaving them, so that incubation may continue during their absence.

Only a few of the nests observed by Mr. Stebbins were covered; the tall grass obstructed the view of the birds, so that when approached they would hurriedly slip off the nests, and leave the eggs exposed. The only birds seen were those in the vicinity of the nests, and they swam away with their heads and necks above water, making a kind of cackling noise. In their habits they resemble the Loon, diving or swimming under water with the greatest ease; and, when on the wing, they fly with wonderful rapidity for birds of their nature.

The eggs of this species are from two to five in number, elliptical oval in shape, very pale bluish green in color; and, like all Grebes' eggs, the surface is stained a light brown, or very much soiled by contact with the decomposed vegetable matter of the nests.

Mr. Walter E. Bryant, of Oakland, California, has a set of five eggs in his collection, which were taken at Washoe Lake, Nevada, in the latter part of May. These measure as follow: 59 x 39, 63 x 39, 58.5 x 38, 60 x 38, 59 x 39.5 mm.* Three sets in my collection, two of five eggs and one of four, taken by Mr. Stebbins, measure: 2.32 x 1.58, 2.40 x 1.57, 2.50 x 1.53, 2.46 x 1.58, 2.48 x 1.60; 2.14 x 1.48, 2.27 x 1.54, 2.30 x 1.63, 2.29 x 1.58, 2.28 x 1.53; 2.44 x 1.52, 2.37 x 1.47, 2.52 x 1.44, 2.45 x 1.47.

The bird known as Clark's Grebe† is probably the female of *A. occidentalis*.‡

*2.32 x 1.54, 2.48 x 1.54, 2.30 x 1.50, 2.36 x 1.50, 2.32 x 1.56.

†Placed in the "Hypothetical List" of the A. O. U. Check-List.

‡Cf. Henshaw, Bull. Nutt. Orn. Club, VI, 1881, pp. 214-218; B. B. and R., Water Birds N. Am., II, p. 423; Bryant, Auk., II, pp. 313-314.

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| 12 Cypress Lenz, Singapore | 40 Native Lodoon, Magnet Cove, Ark. |
| 13 Cypress Island, Australia | 41 Olive Shell, Zanzibar |
| 14 Cypress Andros, E. I. | 42 6 Gutta Feas, Bahamas |
| 15 Red Sea Bean, Bahamas | 43 Piece of Looah, Japan |
| 16 Gray Sea Bean, Nassau, Bahamas | 44 2 Egg Capsules of Poisonable, Atlantic |
| 17 Brown-inked Sea Bean, Bahamas | 45 Piece of Tape Cloth, made by the Nav-
vies of Siamois Isles. |
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SPECIAL NOTICE. We have about 25 imperfect Chautauqua Collections ranging from one to ten minerals that are either imperfect or missing. To close these collections out at once, we will send one by mail, post-paid, for only 50 cents.

Birds' Eggs.

Eggs not listed in 1888, Sept. *Bulletin*.

Black-tailed Gnatcatcher.....	.50
Plumbeous Gnatcatcher.....	.80
Bewick's Wren.....	.50
Sage Thrasher.....	.20
Swainson's Warbler.....	3.00
Prothonotary Warbler.....	.40
California Shrike.....	.20
Clay-colored Sparrow.....	.50
Rusty Song Sparrow.....	.35
Canon Towhee.....	.25
Florida Grackle.....	.08
Northwest Crow.....	.40
American Raven.....	1.95
Green Jay.....	1.00
Florida Jay.....	1.50
Mexican Crested Flycatcher.....	.75
Say's Pewee.....	.18
Black Pewee.....	.18
Berlandier's Wren.....	.50
Baird's Flycatcher.....	.25
Costa's Hummingbird.....	.75
Yellow-bellied Woodpecker.....	.50
Florida Screech Owl.....	.70
Florida Burrowing Owl.....	4.00
Red-bellied Pigeon.....	2.00
Oregon Ruffed Grouse.....	.75
Rock Ptarmigan.....	.75
Willard Ptarmigan.....	.75
Chestnut-bellied Scaled Partridge.....	.75
Ringed Plover.....	.15
Little Ringed Plover.....	.25
Long-billed Curlew.....	.70
Ruff.....	.25
Black-tailed Godwit.....	.40
Dunlin.....	.35
European Snipe.....	.25
European Woodcock.....	1.75
Black-necked Stilt.....	.60
Wilson's Phalarope.....	1.00
Red Phalarope.....	1.00
Northern Phalarope.....	.50
Sandhill Crane.....	1.00
Whooping Crane.....	1.25
White Ibis.....	.25
Glossy Ibis.....	.35
Roseate Spoonbill.....	.75
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Canada Goose.....	.75
White-fronted Goose.....	1.50
King Elder.....	2.00
Pacific Elder.....	1.00
American Merganser.....	.75
Iceland Gull.....	1.25
Franklin's Gull.....	.75
Cabbot's Tern.....	.40
Sooty Tern.....	.35
Noddy Tern.....	.60
Bridled Tern.....	3.50
White-winged Black Tern.....	.50
Audobon's Shearwater.....	2.00
Manx Shearwater.....	.90
Pacific Loon.....	2.00
Horned Grebe.....	.50
American Eared Grebe.....	.25
Great Auk (cast).....	1.25
Brunnich's Murre.....	.20
Copher (Land Tortoise of Fla.).....	.25

Corrections and Change of Prices.

Cedar Waxwing.....	.08
Bullock's Oriole.....	.10
Bobolink.....	.20
Red-headed Woodpecker.....	.08
Cassin's Kingbird.....	.20
Ptarmigan.....	.75
Mew Gull.....	.30
Stormy Petrel.....	.50
Roseate Tern.....	.05

OUR PRICES

for 1889 will remain the same as quoted in the *Naturalist's Bulletin* of Sept., '88, and as given and corrected on this page. We have hundreds of specimens not noted on these lists, but from present outlook we think it will be impossible to issue new catalogues before 1890.

CORRECTIONS.

No. 4, Short-handle Egg Drill 21-100 is 15c instead of 25c.

Our stock of the following is exhausted: Shells etc, Voluta junonica, Black African Coral.

We can now furnish choice Egg Cases of the Periwinkle for only 25c.

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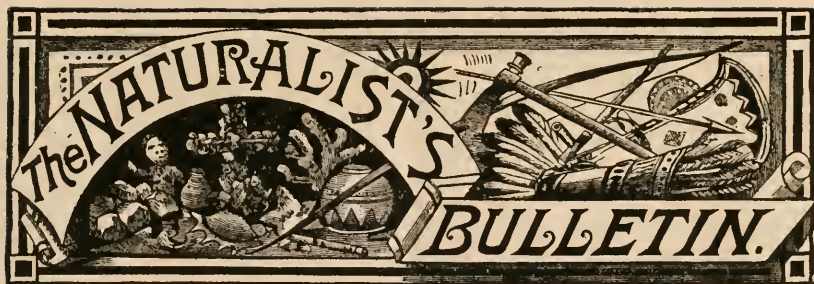
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Quail.....	.04
Black-crowned Night Heron.....	.04
Louisiana Heron.....	.04
Little Blue Heron.....	.05
Snowy Heron.....	.06
White-crowned Night Heron.....	.10
Alligator.....	.10
Am. Avocet.....	.20
Am. Eared Grebe.....	.15
Black Skimmer.....	.04
Laughing Gull.....	.08
Am. Herring Gull.....	.08
Gannet.....	.10
Am. White Pelican.....	.20
Am. Flamingo.....	.25

Address at once,

FRANK H. LATTIN, Albion, N. Y.



VOL. 1.

ALBION, N. Y., SEPTEMBER, 1888.

NO. 3

The Naturalist's Bulletin

Is published occasionally (at least three times per annum) and circulated gratuitously by FRANK H. LATTIN, Albion, Orleans Co., N. Y. Should you desire a copy, write for it. If you are a subscriber for the OOLOGIST for 1888, or send us 25 cts. for anything we advertise, or if you send us 6 cts. we will mail you each issue of the BULLETIN soon as published, during the year.

Prices in this BULLETIN will hold good during the balance of 1888 and doubtless for anything except Birds' Eggs and Instruments during '89.

We have in preparation several new Catalogues viz.: One of each Birds' Eggs; Minerals; Shells and Marine Curiosities; Indian Relics; Scientific Publications; and of Manufactured Articles (Jewelry, Novelties &c.) from Minerals, Shells &c. This series of Catalogues will be published as soon as possible after Nov. 1st but we can promise none until Jan. 1st.

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Wood Thrush.....	04
Wilson's Thrush.....	10
Russet-backed Thrush.....	10
Olive-backed Thrush.....	30
Hermit Thrush.....	25
American Robin.....	02
Western Robin.....	15
Mockingbird.....	05
Catbird.....	10
Brown Thrasher.....	13
Mexican Brown Thrasher.....	25
Curve-bill Thrasher.....	50
California Thrasher.....	25
Stone Chat.....	25
Bluebird.....	02
California Bluebird.....	15
Rocky Mt. Bluebird.....	10
Black-crested Flycatcher.....	60
Blue-gray Gnatcatcher.....	25
Tufted Titmouse.....	60
Plain Titmouse.....	50
Black-capped Chickadee.....	10
Carolina Chickadee.....	20
Least Tit.....	15
Yellow-headed Tit.....	50
White-bellied Nuthatch.....	25
Cactus Wren.....	15
Carolina Wren.....	20
Brown-headed Nuthatch.....	50
California Bewick's Wren.....	25
Texas Bewick's Wren.....	35
House Wren.....	05
Parkman's Wren.....	06
Long-billed Marsh Wren.....	05
Short-billed Marsh Wren.....	50
European Titlark.....	10
Blue Yellow-backed Warbler.....	20
Summer Yellow-bird.....	02
Black-and-yellow Warbler.....	70
Chestnut-sided Warbler.....	10
Black-poll Warbler.....	70
Large-billed Water Thrush.....	70
Maryland Yellow-throat.....	10
Yellow-breast Chat.....	10
Long-tailed Chat.....	20
American Redstart.....	10
Red eyed Vireo.....	10
Warbling Vireo.....	20
Yellow-throated Vireo.....	30
Blue-headed Vireo.....	60
White-eyed Vireo.....	15

Bell's Vireo.....	15
Loggerhead Shrike.....	13
White-rumped Shrike.....	10
Cedar Wax-wing.....	10
Purple Martin.....	15
Cliff Swallow.....	03
Barn Swallow.....	03
White-bellied swallow.....	12
Violet-green Swallow.....	40
Bank Swallow.....	03
Rough-winged Swallow.....	25
Scarlet Tanager.....	20
Summer Redbird.....	15
English Sparrow.....	02
European Tree Sparrow.....	20
Purple Finch.....	10
House Finch.....	05
Chimney Swift.....	05
American Goldfinch.....	06
Gray-back Goldfinch.....	20
Arizona Goldfinch.....	06
Lawrence's Goldfinch.....	20
Lapland Long Sparrow.....	15
Savannah Sparrow.....	10
Western Savannah Sparrow.....	20
Grass Finch.....	05
Western Grass Finch.....	15
Yellow-winged Sparrow.....	12
Western Yellow-winged Sparrow.....	50
Sharp-tailed Finch.....	45
Sea-side Finch.....	35
Lark Finch.....	05
Western Lark Finch.....	12
Gambel's White-crowned Sparrow.....	30
White-throated Sparrow.....	40
Chipping Sparrow.....	02
Western Chipping Sparrow.....	10
Brewer's Sparrow.....	30
Field Sparrow.....	13
Black-chinned Sparrow.....	60
Black Snowbird.....	25
Black-throated Sparrow.....	50
Eachman's Finch.....	100
Song Sparrow.....	02
Mountain Song Sparrow.....	25
Heerman's Song Sparrow.....	15
California Song Sparrow.....	05
Swamp Sparrow.....	15
Texas Sparrow.....	75
Chewink; Towhee.....	10
Florida Towhee.....	25
Spurred Towhee.....	25
California Brown Towhee.....	05
Albert's Towhee.....	125
Cardinal Grosbeak.....	05
Texas Cardinal.....	50
Rose-breasted Grosbeak.....	10
Black-headed Grosbeak.....	20
Blue Grosbeak.....	40
Indigo Bunting.....	10
Lazuli Bunting.....	18
Tainted Bunting.....	12
Grassquit.....	60
Black-throated Bunting.....	05
Bobolink.....	25
Cowbird.....	03
Dwarf Cowbird.....	20
Bronzed Cowbird.....	50
Yellow-headed Blackbird.....	05
Red-and-buff-shouldered Blackbird.....	02
Red-and-black-shouldered Blackbird.....	05
Red-and-white-shouldered Blackbird.....	12
Meadow Lark.....	10
Western Meadow Lark.....	10
Hooded Oriole.....	60
Orchard Oriole.....	05
Baltimore Oriole.....	06
Bullock's Oriole.....	15
Brewer's Blackbird.....	05
Great-tailed Grackle.....	30

Boat-tailed Grackle.....	05
Purple Grackle.....	05
Bronzed Grackle.....	05
European Starling.....	10
Common Crow.....	05
Florida Crow.....	25
Fish Crow.....	30
Black-cilled Magpie.....	20
Blue Jay.....	04
California Jay.....	20
Sky Lark.....	12
Shere Lark.....	20
White-throated Shore Lark.....	25
Mexican Shore Lark.....	25
Sidssor-tailed Flycatcher.....	12
Gray Kingbird.....	35
Kingbird; Bee Martin.....	03
Western Kingbird.....	18
Cassin's Kingbird.....	40
Great Crested Flycatcher.....	12
Ash-throated Flycatcher.....	20
Hoobe Bird; Pewee.....	03
Wood Pewee.....	15
Acanthan Flycatcher.....	15
Trail's Flycatcher.....	20
Least Flycatcher.....	10
Ruby-throated Hummingbird.....	75
Black-chinned Hummingbird.....	75
Anna's Hummingbird.....	75
Chimney swift.....	12
Chuck-will's-widow.....	150
Whip-poor-will.....	125
Nighthawk.....	35
Western Nighthawk.....	40
Texas Nighthawk.....	50
Hairy Woodpecker.....	50
Downy Woodpecker.....	20
Gairdner's Woodpecker.....	40
Texas Sapsucker.....	100
Pileated Woodpecker.....	100
Logcock.....	100
Red-bellied Woodpecker.....	25
Golden-fronted Woodpecker.....	75
Red-headed Woodpecker.....	18
Lewis's Woodpecker.....	30
California Woodpecker.....	30
Yellow-shafted Flicker.....	04
Red-shafted Flicker.....	05
Belted Kingfisher.....	18
Road-runner.....	20
Yellow-billed Cuckoo.....	12
Black-billed Cuckoo.....	10
Groove-billed (rotophaga).....	150
American Barn Owl.....	40
American Long-eared Owl.....	40
Short-eared Owl.....	100
Barred Owl.....	90
Little Screech Owl.....	35
Texas Screech Owl.....	70
California Mottled Owl.....	60
Great Horned Owl.....	140
Western Horned Owl.....	150
Snowy Owl.....	225
European Hawk Owl.....	150
Burrowing Owl.....	25
Whitney's Pigny Owl.....	200
Prairie Falcon.....	200
Duck Hawk.....	250
European Merlin.....	40
Sparrow Hawk.....	30
European Festival.....	30
Caracara Eagle.....	150
American Osprey.....	50
Marsh Hawk.....	30
Cooper's Hawk.....	25
Sharp-shinned Hawk.....	50
American Goshawk.....	200
Harris's Hawk.....	125
European Buzzard.....	30
Red-tailed Hawk.....	50
Western Red-tail.....	75
Red-shouldered Hawk.....	75
Red-bellied Hawk.....	75
Swainson's Hawk.....	100

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White-fronted Dove.....	.50	Corn Crake.....	.20	Californian Gull.....	.30
White-winged Dove.....	.50	Purple Gallinule.....	.25	Ring-billed Gull.....	.30
Ground Dove.....	.20	Florida Gallinule.....	.08	Mew Gull.....	.45
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Sage Cock.....	.70	Gadwall.....	.75	Arctic Tern.....	.10
Bobwhite.....	.10	Pintail.....	.30	Roseate Tern.....	.17
Florida Quail.....	.15	Widgeon.....	.25	Least Tern.....	.05
Texas Quail.....	.12	Baldpate.....	.75	Black Tern.....	.12
Californian Quail.....	.10	Shoveller.....	.40	Skua.....	.70
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Wardman's Heron.....	1.50	Cinnamon Teal.....	.40	Fulmar Petrel.....	.60
Great Blue Heron.....	.25	English Teal.....	.18	Stormy Petrel.....	.16
Common European Heron.....	.20	Green-winged Teal.....	.40	Leach's Petrel.....	.15
American Egret.....	.20	Wood Duck.....	.50	Western Grebe.....	.50
Snowy Heron.....	.12	Scaup Duck.....	.60	Thick-billed Grebe.....	.10
Reddish Egret.....	.30	Redhead.....	.75	Loon.....	1.25
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C. J. MAYNARD & CO.,
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 ETC., ETC.

Boston, Mass., Sept. 17, '87.
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It is with considerable regret that I sever my connections with my customers in this line of Natural History specimens, but there is no one to whom I would consign my egg business with less regret than to Mr. Lattin. This gentleman has from a small beginning, built up a business second to none in the country. Mr. Lattin, I can unhesitatingly say, not only knows the eggs, that he has in his collection most thoroughly and is thus in a position to identify eggs sent to him but is also well acquainted with all the details of his business and I can conscientiously recommend him to my patrons, whom I trust will extend to him in the future the many favors that they have given to me in the past as I feel confident that they will meet with perfect fair treatment from this my successor.

Respectfully, C. J. MAYNARD.

Oological Instruments, &c.

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No. 3, " " 18-100, 11	
No. 4, " " 21-100, 25	
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No. 4, 8.32 "	63
No. 5, 11.32 "	90
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1 21-100 Drill.....	15
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1 White Metal Blow-pipe.....25

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Outfit No. 3, contains THE BEST, and is just what is needed by every Oologist. Should you already have one or more articles in this outfit, I will allow you 1/2 the price at the left for such articles, this amount to be deducted from the \$3.40, my price for the outfit complete.

Outfits Nos. 1 and 2, are put up in large quantities, and can not be changed.

Outfit No. 1, will prepare a set of fresh eggs just as well as No. 3.

Pink Wool Cotton:—Desirable for lining trays and cabinets. Comes in strips 14 in. wide. 12c per ft., 30c per yard; in lots of 5 yards or over, 25 cts. per yard; sample, 2c.

We also keep Blue, Canary and white cotton for lining trays, etc., at same prices.

of Scissors, 1 Scalpel, (ebony handle), 1 Cartilage Knife, 1 pair Spring Forceps, Chain and Hooks.

We will send all in a neat cherry case by return mail for only \$2.00; or, for \$5.00 we will send you

1 Cartilage Knife, 3 sizes scalpels (ebony handles), 1 Dissecting Hook, 1 pair Scissors, 1 pair Forceps, 1 set Chain Hooks, 1 Strap for sharpening scalpels, 1 pair Stuffers, 1 Manton's Taxidermy, 50cts. worth of Glass Eyes, and 1 Black Walnut Case for holding instruments.

We guarantee either of the above sets of instruments to be first-class in every respect, and to give better satisfaction than any case of instruments ever offered before for the money.

GLASS EYES!

Please examine our prices before ordering elsewhere.

ELONGATED PUPILS, 20 per cent. extra.

FISH EYES, 10 per cent. extra. Special extra fine veined eyes at from 40 per cent. extra to double price. Write just what you want, and for what.

We keep the following colors in stock:

Hazel, brown, red-brown, white, yellow, straw, red and clear or tint (can be painted any color desired). State color desired when ordering eyes with "colored" iris.

TAXIDERMISTS' Instruments & Supplies.

Brain Scoop.....\$0.25 to \$0.75

Scissors, dissecting......60

" curved......75 to 1.25

Scalpels, 5 sizes, best made, each......60

Cartilage Knife......75

Disarticulator......75

Microscopic Knife......75

Taxidermists' Forceps 30 to 200

Tweezers, many styles.....12 to 30

" Taxidermists'......25

Cops, for winding birds' bodies

.65 each, 4 for 25c.

For other Taxidermists' and Naturalists' instruments and supplies, write what you want.

Morocco Cases for carrying instruments in pocket 1.25.

Tags for Bird Skins, printed, 10c per 100, 75c per 1000.

Tags same as merchants use for marking goods, not printed but with string, very handy for skins, etc.:

Small, per 100, 10c, per 1000, 50

Medium " 12 " 75

Large " 15 " 1.00

Outfits for Taxidermists.

We have put you up a complete set of instruments for preparing skins, consisting of 1 pair

COLORED		SIZES.		BLACK.	
Per pair	Per 5 pair	No.	diam in. inch.	Per pair	Per 10 pair
\$0.02	\$0.07	00	1-32	0.01	\$0.02
.02	.07	0	2-32	.01	.02
.02	.10	1	3-32	.01	.02
.02	.10	2	4-32	.01	.02
.03	.13	3	5-32	.01	.03
.03	.13	4	6-32	.01	.03
.04	.16	5	7-32	.01	.05
.04	.17	6	8-32	.01	.05
.04	.19	7	9-32	.01	.07
.05	.20	8	10-32	.01	.07
.06	.26	9	11-32	.02	.10
.06	.27	10	13-32	.02	.10
.08	.35	11	14-32	.02	.14
.09	.40	12	15-32	.02	.14
.12	.53	13	16-32	.02	.16
.13	.60	14	17-32	.03	.19
.14	.65	15	18-32	.03	.24
.15	.70	16	10-16	.04	.30
.17	.80	17	11-16	.05	.40
.18	.85	18	12-16	.05	.47
.20	.95	19	13-16	.07	.60
.21	1.00	20	14-16	.08	.67
.24	1.15	21	15-16	.09	.80
.25	1.25	22	1	.12	.94
.28	1.35	23	2-16	.13	1.07
.31	1.50	24	3-16	.14	1.20
.35	1.70	25	4-16	.15	1.33
.37	1.80	26	5-16	.18	1.47
.41	2.00	27	6-16	.20	1.75
.54	2.60	28	1-2	.25	2.60

SHELLS.

The following Shells are all very fine and showy, all are cleaned and many highly polished, and are sold at wholesale at the prices we are offering them.

Chinese Pearl Snail \$0 35 to \$2 00

" Banded Snail..40	" 60
" Blotched Snail 40	" 60
" Trochus (Top).....	25
" Spider.....15	" 1 00
" Harp.....25	" 75
" Hallotis.....05	" 13
" Small Ear.....05	" 10
" Strombus.....	10
East India Clam.....20	" 2 00
" Furbio Clam.....40	" 3 00
" Scorpion.....40	" 75
" Melon.....35	" 2 00
" Turks Cap.....20	" 50
" Goldmouth.....15	" 25
" Pearl Trocus.....25	" 60
" Cone.....10	" 40
" Virgin Cone.....25	" 75
" Mitre.....10	" 30
" Marlinspike.....30	" 50
" Tiger Cowry.....05	" 25
New Zealand White Ear 50	" 1 25
" Green Ear.....50	" 1 00
Japan Black Ear.....50	" 1 00
" Hallotis.....	15

Cal. Red Ear (Abalone) 1 00	" 2 00
Same in rough.....25	" 75
Panama Black Murex.....25	" 75
" Rose Murex.....25	" 1 00

Pink Murex.....25	" 75
Bahama Black Helmet 50	" 1 00
West India Conch.....15	" 30
Florida Strombus.....05	" 15
Florida Olive Shell (Key)	" 10

Florida Fasciolaria.....05	" 10
" Pyrala.....05	" 10
" Murex.....05	" 15
" Fiddle head.....05	" 15
" Bloody Tooth.....03	" 75

Zanzibar Cameo.....25	" 15
" Tritons.....75	" 3 00
" White Murex.....15	" 2 00
Magpie Trochus.....20	" 30
Engraved Cameo.....1 50	" 2 00

" Motto Cowry.....	25
" (Lord's Prayer)	
Snail.....	1 50
Engraved (Lord's Prayer)	
Trochus.....	1 25
Engraved (Lord's Prayer)	

Cowry.....	50
Zanzibar Blued Cowry.....10	" 25
" Mourning ".....20	" 50
" Silverlip.....10	" 15
" Hooked Scorpion 20	" 35
" Orange ".....20	" 35
" Egg Shell.....20	" 40
" Cockel.....40	" 1 00

East India Valute.....15	" 30
" Nautilus.....1 00	" 2 50
" Yellow Helmet 75	" 2 00
Bahama Hatchet " 50	" 1 50
Ceylon Banded Snail...	15
" Black Mouth ".....	15

We can put up an assortment of large showy shells, at from \$1.00 to \$25.00; they will retail at twice these prices.	
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FLORIDA SHELLS.

Fine live specimens carefully prepared.

Olivia literata.....\$0 05 to \$0 15	
Cardium magnum.....25	" 50
Murex capucencins.....	10
Callista gigantea.....	25

Cardium isocardia.....10	" 15
Conus leonensis.....10	" 15
Fasciolaria distans.....	10
Dosina discus.....10	" 15
Scyotypus papyracus....	15
Chama arcaneella.....	10
Uplura Tamplensis.....07	" 15
Glaudina parallella.....10	" 15
Nerita peleronta.....05	" 10
Pholas costatus.....25	" 50
Voluta junonica.....2 00	" 5 00

Smaller Shells.

Cowry Shells, assorted including *Cypræa Miquela*, *Lynx*, *Arborica*, *Pantherina*, *Helveta*, *Caput-serpents*, etc., each 2 to 5 cts.; per doz., 5 to 30 cts.; per 100, \$1.00.

Venetian Snail, doz. \$0.05 to \$1.00	
Black Snail.....	" 05 " 10
Yellow Snail.....	" 05 " 10
Olive.....	" 10
Frog.....	" 10 " 15
Screw.....	" 05 " 25
Horn.....	" 05 " 25
Guinea Peas.....	" 02

We have in stock over 50 other var. of small shells,

MARINE CURIOSITIES.

CORALS.

Organ Pipe.....\$0 05 to \$1 00	
Black, Africa.....05	" 25
Branching, very fine	
" large clusters.....1 50	" 3 00
" small spec.....02	" 50

Pink, from Caroline Isles
This lace like coral is quite expensive, rare and beautiful; our supply is limited; fine

sprays.....03	" 5 00
Red, Sandwich Isles,	
" very fine.....05	" 2 00
Rose Corals.....05	" 25
Brain ".....20	" 5 00
Vermetous Corals.....10	" 5 00
Palm.....10	" 3 00

Many species coral not on list.....10 " 5 00
Sea Fans.....10 " 75
Flexible Coral, Africa.....05 " 50
Coraline, Florida.....10 " 50
Africa.....10 " 50

Purple Sea Ferns.....25	" 1 00
Sponges. A large assortment of curious forms and species.....10	" 1 25
Venus Coral or Glass	
Sponge.....1 00	" 1 50
Sea Urchins, Atlantic.....03	" 10
" Pacific.....05	" 10
" large white	
Bahamas.....15	" 25
Sea Urchins, Mammoth purple, Pacific.....	75
Sea Urchins, (Sand Dollars).....03	" 15
Key-hole Urchin.....	25
Club-spined Urchins,	
" rare.....35	" 75
Sea Biscuits, spines.....35	" 75
" without ".....25	" 50
Sea Beavers.....40	" 75
Starfish, common Atlantic.....03	" 25
Starfish, the largest and finest we ever saw, some measuring 16 in. in diam. and 4 in. through.....50	" 1 50

Skate Eggs.....	05
Shark Eggs.....	15
Devil fish Eggs.....	20
Alligator Eggs.....	20
" Teeth.....03	" 50

Barnacles, from the Pacific, very fine and curious.....05 " 25
Lucky tooth from Codfish.....05

Cards of Marine Algae, Atlantic, each 08; doz. 75
Sawfish Saws, 6 in. to 14 in. long, very fine and perfect.....50 " 1 00

Sword fish Swords, 30 in. long.....1 50 " 2 00
Mammoth Alligator Heads prepared.....5 00 " 20 00
Egg Case of Peri, winkle.....50

Miscellaneous Curiosities.

Brazil Nut Pods.....40	" 75
Vegetable Ivory Apples, 35	" 75
Beetle Nuts, New Zealand.....	10
1000 mixed Foreign Stamps.....	20
100 Foreign Stamps, all different.....	15
Chinese Coins.....5, 3 var. for 10	15
Japanese Coins, oblong	
Bark from Cork Tree in natural state.....10	" 2 00
Bark from the "Big Tree" of Cala.....10	" 20
Cone from Cala, "Big Trees".....	20

Resurrection Plant from Mexico, when placed in water will unfold and assume a beautiful green.....15
Tarantulas, dried.....25
Buffalo Horns, polished. 1 00 " 3 00
Nest of Tarantula or Trap Door Spider very fine.....50 " 75

Shavings of a Meteor which fell at Cohahuilla, N. M.....10 " 25
V Nickels, 1883, without the word cents, fresh from the mint, never in circulation.....15

FOSSILS.

Shark Teeth, S. C.....05	" 25
Mazon Creek Fossil Ferns.....05	" 50
Other Mazon Creek Fossils.....05	" 50
Crinoid Stems, Penn.....03	" 10
" Crawfordsville, Ind., the finest in the world.....05	" 20
Fossil Coral, Iowa.....05	" 1 00
" Petosky Agates, unpolished.....15	" 25
Petosky Agates, polished.....25	" 50
Fossil Coral, Iowa, polished, very fine, two var., "Birds Eye" and "Fish Egg," each.....25	" 2 00
Fossil Fish, very fine. 1 00	" 5 00
Fossil Bone.....05	" 70
Tribolites.....25	" 75
Ammonites.....75	" 1 00
Baculites.....25	" 75

INDIAN RELICS.

(STONE AGE.)

ARROW HEADS.

War Points, Triangular, no notches.	\$0.10 to \$0.25
" " Deep Notched.	10 " .25
" " Long and Slender, notched.	10 " .25
Leaf Shaped.	05 " .25
Short and Thick or Blunted.	05 " .25
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Deep Notched.	10 " .50
Rotary.	50 " 1.00
Serrated.	25 " 1.00
Double Notched.	25 " .50
Top Notched.	20 " .50
Pointed, both ends.	25 " 1.00
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SPEAR HEADS.

Triangular.	25 " .50
Leaf Shaped.	25 " .50
Long slender, notched.	15 " .50
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Deep Notched.	25 " .50
Top Notched.	50 " 1.00
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Thick Spears.	25 " .50

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Curved Back.	50 " 1.00
Double Edged.	20 " 2.00
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Curved Edged.	25 " 1.50

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Unnotched.	10 " .25

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Medium, "	70 " 1.25
Large, "	1.00 " 2.00

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" " fine.	50 " 1.00
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Arrow Heads, assorted, per doz.	50 " 1.00
per 100, 3.00 to 10.00.	

Spear Heads, well assorted, 3.00 per doz.	
Fragments of Pottery.	05 " .25

We will send the following collection prepaid for \$3.00.

- 1 doz. good Arrow heads,
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- 1 grooved Axe,
- 2 fine scrapers,
- 2 " Knives,
- 1 " Spear Head,
- 1 Pestle,
- 3 var. Indian Pottery fragments.

We could pick you out poor specimens and send you the above collection, postage or expressage extra, for only \$1.50, and on the other hand we can send you the same lot *extra fine* for \$1.00. In each and every case we guarantee satisfaction.

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Andalusite.....	15 " 50
Anhydrite.....	02 " 25
Anthrophyllite.....	03 " 25
Anthracite.....	02 " 10
Apatite.....	02 " 15
Apophyllite.....	03 " 25
Argentiferous Galena.....	02 " 50
Aragonite.....	02 " 50
Arsenopyrite.....	02 " 25
Asbestos.....	02 " 25
Azurite.....	03 " 25
Barite.....	02 " 35
Bituminous Coal.....	02 " 10
Bog Iron.....	02 " 50
Biotite.....	02 " 15
Borax.....	02 " 10
Bronzite.....	02 " 25
Buhrstone.....	02 " 25
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Laumontite.....	10 " 25
Lead Ore.....	05 " 50
Leelite.....	02 " 25
Leopardite.....	03 " 25
Lepidolite.....	02 " 15
Lignite.....	02 " 15
Limonite.....	02 " 50
Lodestone, Native.....	05 " 50
Lumachelle.....	05 " 50
Lithographic Stone.....	02 " 25
Magnetite.....	02 " 25
Magnetite.....	02 " 25
Malachite.....	03 " 3 00
Mesolite.....	05 " 25
Menaccanite.....	03 " 25
Marble.....	02 " 25
Marcasite.....	02 " 25
Meteorite Iron.....	02 " 25
Mica Schist.....	02 " 35
Mexican Onyx.....	02 " 15
Mica.....	02 " 50
Microline.....	03 " 25
Moss Agate.....	03 " 1 00
Muscovite.....	02 " 50
Natrolite.....	02 " 25
Nephelite.....	03 " 15
Novaculite.....	02 " 15
Nuttallite.....	05 " 50
Obsidian.....	02 " 25
Ochre.....	02 " 15
Onyx.....	05 " 5 00
Opal Wood.....	02 " 1 00
Orthoclase.....	02 " 25
Ouvarovite.....	05 " 25
Pearl Spar.....	02 " 25
Pectolite.....	02 " 25
Pecock Coal.....	02 " 15
Petrified Wood.....	02 " 5 00
Porphyry.....	02 " 25
Pumice.....	02 " 25
Phlogopite.....	02 " 15
Picrolite.....	03 " 25
Phrenite.....	05 " 25
Psilomelane.....	05 " 25
Pyrite.....	02 " 50
Pyroxene.....	02 " 15
Pudding Stone.....	02 " 25
Quartz, Milky.....	02 " 25
Quartz, Crystals.....	03 " 5 00
Quartz, Drusy.....	05 " 25
Quartz, Glassy.....	02 " 25
Quartzite.....	02 " 25
Quartz, Ferruginous.....	05 " 25
Quartz, Rose.....	02 " 25
Quartz, Smoky.....	02 " 50
Ripidolite.....	03 " 50
Rock Crystal.....	03 " 50

Rutile.....	03 " 25
Satin Spar.....	02 " 50
Scapolite.....	05 " 25
Selenite.....	02 " 50
Semioval.....	03 " 1 00
Serpentine.....	02 " 25
Sandstone.....	02 " 15
Sillimanite.....	03 " 25
Siderite.....	02 " 25
Silicified Wood.....	05 " 50
Soapstone.....	02 " 25
Silver Ore.....	03 " 25
Spinel.....	02 " 25
Specular Iron.....	02 " 25
Sphalerite.....	03 " 20
Staurolite.....	05 " 25
Steatite.....	02 " 25
Sulbrite.....	02 " 25
Sulbrite.....	02 " 15
Sunk Stone.....	03 " 25
Stream Tin.....	02 " 15
Succinite.....	15 " 1 00
Sulphur, Native.....	03 " 15
Talc.....	02 " 25
Tourmaline, (black).....	02 " 25
Tourmaline, (green).....	03 " 25
Trap.....	05 " 25
Tremolite.....	02 " 25
Tripolite.....	03 " 15
Tufa.....	02 " 25
Ulexite.....	03 " 15
Uranite.....	10 " 1 00
Variscite.....	02 " 1 00
Willemite.....	05 " 50
Williamsite.....	02 " 50
Wernerite.....	05 " 15
Wollongongite.....	03 " 25
Wulfenite.....	03 " 15
Zinc Blende.....	03 " 25
Zincite.....	02 " 50
Zircon.....	03 " 15

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Disinfectant Cones, doz.....	18
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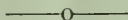
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Birds Known to Nest in New England.



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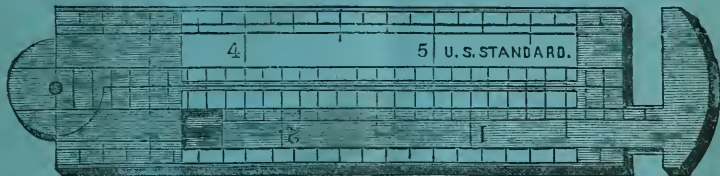
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VOL. VI,

ALBION, N. Y., MAY, 1889.

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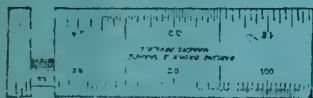
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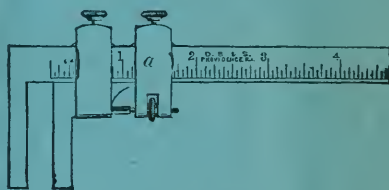
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TO EXCHANGE—Hand-inking printing press, chase 7 x 4 $\frac{1}{2}$ inches, large fount of long primer, brass rule, etc. for 1st-class eggs in sets with data. Eggs of Hawks, Owls and Herons preferred. FRED W. CURTIS, Wauwatosa, Wis.

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I want at once the following first-class eggs, either single or in sets, in exchange at full *Bulletin* prices, or if in sets I will allow 10 per ct. above these prices, in exchange for the articles mentioned below. Eggs taken in large or small quantities. No exchange amounting to less than \$1.00 can be "bothered with" unless 10c additional is enclosed for return postage and packing. Species warranted, Ridgway's No's.:

No. 2, 4, 4a, 5b, 16, 21, 41, 47, 51, 56, 60, 63, 63a, 67, 69, 70, 72, any of the Warblers and Vireos, Nos 75 to 145 inclusive; 157, 161, 168, 181, 198, 217, 231c, 231b, 237, 240b, 242, 244, 245, 248, 251, 254, 260, 263, 264, 270, 271, 277, 279, 282, 289, 293, 299, 300, 312, 313, 315, 326, any of the Hummingbirds, 353, 354, 357, 361, 385, 387, 388, any of the Owls, Hawks, Buzzards, Vultures or Eagles, 473, 477, any of the Quails, 487, 488, 489, 494, 497, 498, any species from No. 500 to 764.

In return for the above I will give any of the following articles, specimens or supplies at the prices quoted.

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No. 1, 8-100 Egg Drill,08	All extra fine live specimens.	
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Blowpipes, watch-metal,25	" vitellus,10
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100 Exchange and Return Ex. Sheets, ..	.80	Mercenaria Lateral,15
" Order Sheets,45	Purpura patula,15
" Billheads, .. .. .	.45	Murex pudicolor, .. .. .	.15
" Data Blanks, No. 8, .. .. .	.45	Oliva fusiformis, .. .. .	.15
" " " " 4, .. .. .	.20	" litterata, .. .. .	.15
" Labels, No. 11, .. .. .	.18	Chiton, squamosus, .. .. .	.10
" Taxidermists' Labels, No. 13, .. .. .	.20	Fissurella Barbadosis, .. .. .	.10
" " " " 14, .. .. .	.15	Strophia glans, .. .. .	.10
Oologist's Hand-book, .. .. .	.25		
Oologist's Directory, .. .. .	.80	NOVELTIES.	
17 Back numbers Oologist (prem No 50) ..	.50	Little Brown Jug, .. .. .	.05
Oologist without prem. from date to Jan., '90.	.50	Collector's Puzze V. Whistle, .. .. .	.50
Card good for one Exchange Notice in		Bird Warbler, .. .. .	.10
the Oologist, .. .. .	.25	Catapult Gun—wood frame, .. .. .	.25
		Box Pharaoh's Serpent Eggs, .. .. .	.15
		18 best assorted Fish Hooks, .. .. .	.10
SPECIMENS.		If you desire to obtain anything on the above list in exchange, send on your eggs at once. If you have no eggs, but have other desirable specimens in quantity, write what you have with price; or will exchange for collections of fine postage stamps, or books on Natural History, or choice Indian relics.	
Egg Case of Periwinkle, .. .. .	.35	Only first-class specimens accepted at any price. All others returned at senders expense.	
Lucky Tooth of Codfish, .. .. .	.15	We will receive hundreds of packages in answer to this exchange, and if you do not write your name plainly on the outside of the packages you send, your exchange will be delayed and packages possibly lost.	
Club-spined Urchin, .. .. .	.50	This offer will hold good until June 10th only. At that date we may see fit to extend it, but shall do so without liability to it entirely.	
Choice Bahama White Urchin, large, ..	.25	Send on your specimens at once in large or small quantities. It makes no difference to us whether you send \$1.00 or \$100.00 worth; but if less than \$1.00 worth, 10c extra must be enclosed for return postage and packing.	
Sand Dollar, extra, .. .. .	.15	Large quantities shipped by Express or Freight must be prepaid.	
Starfish, Martha's Vineyard, fine, ..	.25	Address plainly,	
Shark's Egg, .. .. .	.25		
Bahama Purple Urchin, .. .. .	.15		
Six Cards Marine Algae, .. .. .	.50		
Venerable Ivory Apple, fine, .. .. .	.50		
Pod of Royal Ponciana or Sabre Bean, ..	.35		
very curious, .. .. .	.35		
Rajah or Beetle Nut, .. .. .	.15		
Brown-banded Sea Bean, .. .. .	.10		
Red Sea Bean, .. .. .	.03		
Gray Sea Bean, .. .. .	.03		
Trilobite, Calymene, Niagrensens, ..	.40		
Scaphites, from Black Hills, choice & desirable, ..	.50		
Resurrection Plant, .. .. .	.15		
An extra fine Rose Coral, .. .. .	.25		
Barnacle, Pacific, a choice double specimens ..	.25		
Polished Agate, pendant, can be worn as a charm, .. .. .	.25		
Indian Pottery, fine 2 in. specimen, ..	.25		

FRANK H. LATTIN, Albion, N. Y.

Exchanges and Wants.

Brief special announcements. "Wants," "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

I have got first-class birds' skins for sale or exchange for the same. Please Address, JESSE T. CRAVEN, Box 64, Hulburton, N. Y.

GOOD D. B. B. L. shotgun, side snap, 12 gauge, cost \$15, to exchange for eggs in sets. C. W. TREAT, Brooklyn, O.

TO EXCHANGE—For the best offer of bird's eggs' before August 1, 1889, \$25.00 worth of rare l. S. and Foreign STAMPS. For particulars, Address, W. PHILLIPS, Red Wing Minn. Box 131.

WANTED—To exchange eggs in sets for any books on oology or ornithology. Write and tell me what you have and receive my list. Address, WILL C. STAAT, 501 Jerome street, Marshalltown, Iowa.

WANTED—Second-hand trays, sizes 2 x 1½ and 3 x 2, 100 of each size; also first-class eggs, single and pairs, can offer first-class sets and single eggs of 673 043a. 492. What offers? WILLARD ELLIOT, Thonotosassa, Fla.

800 first-class birds' eggs, 50 var., or 100 arrow-heads, to exchange for rare United States coins, other eggs, curiosities or a good gun. WM. HUTCHINSON, North Star, Alleghany Co., Pa

TO EXCHANGE—I have about 250 varieties of N. American fresh water shells and 200 varieties of N. A. marine shells to exchange for N. A. species of moths and butterflies. A. K. FAIRCHILD, Whippany, N. J. my6

WANTED—To exchange a first-class American G-s-hawk egg with data, for the best offer of first-class eggs in sets or single. F. E. SHOUP, Sewanee, Tenn.

Nos. 181, 154, 170a, 315, 306, 231a, 337 and 336 with nests, all sets to exchange for climbing irons and taxidermist's outfit. A. W. NOLTE, Rowland St., Los Angeles, Cal.

EXCHANGE—Sets of eggs for same; will have, this coming Spring, Eagles', Owls', Hawks', Geese' Ducks', Gulls' etc, etc., in full and complete sets with full data, collected in the United States. Can furnish lists, and will book exchanges now. A few nice sets, 3 eggs each, No. 674, Franklin's Gull for other sets. Eggs for anything send list of what you have, stating your wants. HENRY W. DAVIS, Lock Box 2, North Granville, N. Y.

I want The following first class singles; will give in exchange eggs of this county. Latin's hand-book as a basis: Nos. 11, 41, 67, 229, 275, any of the Owls', Hawks' or Herons', 580, 666, 627, 087a, 641, 650, 656, 666, 668a, 673, 734, 742 794a. I have a first-class egg of Harris Hawk which I would exchange for Ingersoll's "Birds Nesting." MOSES L. WICKS JR., No. 1, South Hill St., Los Angeles, Cal.

WANTED—TO PURCHASE COLLECTIONS OF INDIAN RELICS AND OTHER CURIOSITIES FOR WHICH CASH WILL BE PAID. PARTIES HAVING SUCH FOR SALE WILL PLEASE CORRESPOND WITH W. H. KING, JACKSONVILLE, ILLS. apr



Your name and address will be inserted in our department, 1 month for 10 cts.; 3 months, 25 cts.; 6 months, 45 cts.; 1 year, 75 cts. Should you desire to have your name printed in more than one department, one-half of these rates will be charged for each additional one.

Live collectors will not be long in observing the importance of keeping their names standing in this Directory. Collectors and dealers desiring to make sales, purchases or exchanges will not only write to the parties whose names appear in this directory for their wants, but will also keep them posted on "bargains" that they may have for sale cheap; publishers having papers, etc., that would be of interest to the persons whose names appear in this Directory, will recognize the importance of placing samples etc. in the hands of Live Collectors and will act accordingly.

Collectors receive as high as 25% Letters, Fossils, Cretaceous, Samples etc. from here. Their names inserted one time at a cost of only 10 CENTS in this Directory. Address, THE OOLOGIST, Albion, N. Y.

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L. W. Nichols, Jr., Richmond, Ills. m3
Coite K. Woodruff, Hotel Balmoral,
Montreal, Can. m3
R. B. Tronsolt, Rooms 15 & 16, Humboldt
Block, Kansas City, Mo. 3m
F. E. Shoup, Sewanee, Tenn. A3
N. R. Christie, Box 394, Modesto, Cal.
Chas. E. MacDonald, No. 58, West 82nd St.,
New York City, N. Y.
Willard Eliot, Thonotosassa, Fla.
Roger Winfield, care of Prof. Rankin,
Waukesha, Wis.
G. H. Rogers, Jr., Box 14, Wauwatosa,
Wis.
Will A. Moore, Box 661, Norwalk, Ohio.
F. H. Baker, Box 68, Oakville, Ontario,
Canada.
Will J. Cosgrove, 59, Court St., Bingham-
ton, N. Y.
W. C. Hutchinson, Winchester, Ills.

BIRD SKINS.

- L. W. Nichols, Jr., Richmond, Ills. m3
Colburn & Lake, No. 1938, 14th St.,
Washington, D. C. A2
Herbert L. Merritt, Box 116, Chatham,
Ont, Can.

POSTAGE STAMPS.

- G. F. Osborne, 13, Lydentrani St., Kingston,
Can.

INSECTS.

- Chas. E. Brown, 219, 14th St., Milwaukee,
Wis.

INDIAN RELICS.

- R. G. Treat, Brooklyn, Ohio.

TAXIDERM Y.

- Mrs. F. C. Wiswall, Prairie Du Sac, Wis. m3
W. Nichols, Jr., Richmond, Ill. m3
Colburn & Lake, No. 1938, 14th St.,
Washington, D. C. A2

BOTANY.

- James Galen, Rawlinsville, Pa. m3

DAVIE'S EGGS.

It has been deemed advisable to offer the few remaining eggs at the following greatly

Reduced Rates

Which range from 10 to 50 per cent less than previous quotations and will average over 25 per cent.

\$20.00 Worth of Eggs IN SETS FREE!

We have concluded to show that we appreciate the efforts of our oological friends in assisting us in disposing of this collection by making the largest purchasers presents of the following valuable eggs:

To the person sending us the largest amount of money for Davie's eggs, either sets, singles or nests on or before May 15, 1889, we will give a set of one egg of the Bald Eagle.

To the second largest purchaser a set of 1 egg of the Bridled Tern.

To the third largest purchaser a set of 4 eggs of the Horned Grebe.

To the 4th and 5th largest purchasers each a set of 1 egg of the American Flamingo.

To the 6th and 7th largest purchasers each a set of one egg of the Noddy Tern.

To the 8th to 10th largest purchasers each a set of 1 egg of the Sooty Tern.

To the 11th to 15th largest purchasers each a set of 2 eggs of the Black Tern.

To the 16th to 25th largest purchasers each a set of 2 eggs of the Mourning Dove.

Conditions.

The winner of the 1st to 3rd prizes, must purchase at least \$5.00 worth of the Davie eggs; 4th to 10th prizes, at least \$2.00 worth; 11th to 25th at least 50 cts. worth. To compete for these prizes only orders for the Davie eggs will count. Orders can be mailed at any time between Apr. 1st and May 15th. Prizes will be awarded May 25th and announced in June Oologist. Should a person send a dozen or more orders between Apr. 1st and May 15th it will be the total sum of all these orders that will count in the competition. In case two or more persons should send the same amount the earliest order will rank first.

All eggs will be carefully packed in strong tin or wooden boxes and sent by mail or express at our risk and (on orders of \$1.00 or over) expense. Make remittances in most convenient manner.

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Albion, N. Y.

EGGS IN SETS.

All prices are for the complete set as described.

Orders under 30 cts. must contain 5 cts. additional and under \$1.00 10 cts. additional, for postage and packing.

In all cases you must name additional sets that you can use as substitutes in case the ones ordered have been sold. In case this is not done we will take equally desirable sets from our stock to fill the order, or money will be refunded.

Abbreviations.

To condense the list, the following abbreviations have been used:

ch.....	chipped holes
dc.....	data complete
dnc.....	data not complete
F. C. O. and fco.....	Franklin Co., Ohio
L. I.....	Long Island, N. Y.
N.....	nest accompanies set
nd.....	no data
O.....	Ohio
S. G. P. C. or sgpc.....	San Geronima Pass, Cal.
snc.....	set not complete
?	questionable
1-2 Wood Thrush, 3, nd.....	\$.08
3-5 Wood Thrush, 4, coll. by Oliver Davie, Franklin Co., O., dnc.....	.18
6-7 Wood Thrush, 5, coll. O. Davie, Franklin Co., O., dnc.....	.22
10-11 Catbird, 3, F C O ? nd.....	.04
12-13 Catbird, 4, F C O ? nd.....	.06
14-16 Brown Thrasher, 3, F C O ? nd.....	.06
19 Blue-gray Gnatcatcher, 4, S G P C dc.....	.70
21 Black crested Flycatcher, 2, S G P C dc.....	.75
26 Ground Tit, 2, snc S G P C dc.....	1.15
27 Tufted Titmouse, 4, Clinton Co., Ind dc.....	1.25
28 California Bush-tit, 5, S G P C dnc.....	.50
31 Carolina wren, 5, coll. by O. Davie, F C O dnc.....	1.00
36 Yellow-breast-Chat, 3, O. Davie, F C O dnc.....	.35
37 Chewink, 3, F C O ? nd.....	.20
38 Yellow-breast-Chat, 2, F C O ? nd.....	.14
39 Am. Redstart, 3, O. Davie, F C O dnc.....	.30
40 Am. Redstart, N 2, nd.....	.20
41 California (?) Shrike, 5, San Jose, Cal., dc.....	.35
42 California (?) Shrike, 5, S G P C dc.....	.35
43 Cedar Waxwing, 3, Lake Co., Ill. dc.....	.25
44 Purple Martin, 3, snc Ich. St. Law. Co., N. Y. dc.....	.25
45 White-bellied (Tree) Swallow, 4 snc, St. Law. Co. N. Y. dc, eggs dirty.....	.35
47 House Finch, 4, Haywards Cal., dc.....	.18
56-57 Arkansas Goldfinch, N 4 S G P C dc.....	.75
58 Lawrence's Goldfinch, 5 (3 ch) S G P C dnc.....	.60
59 Lawrence's Goldfinch, N 1 S G P C nd.....	.30
61 Sharp-tailed Finch, 2 snc, Mass. dc.....	.55
62 Field Sparrow, 2, F C O nd.....	.06
63 Field Sparrow, 3 F C O nd.....	.08
64 Field Sparrow, 3 snc F C O nd.....	.07
65 Song Sparrow, N 5, nd.....	.12
66 Cal. Song Sparrow, 3, Marlon Co., Cal., dc.....	.20
67 Cal. Song Sparrow, 3, near San Francisco dnc.....	.15
69 Rusty Song Sparrow, 4 (1 ch) Oregon dnc.....	.75
70 Spurred Towhee, 4, sgpc dc.....	.50
71 Lazuli Bunting, 4, San Bernardino, Cal., dc.....	.50
76 Blue Grosbeak, 2 snc, Forsythe Co., N. C. dc.....	.60
81 Bullock's Oriole, 4, sgpc dc.....	.35
84-87 Bullock's Oriole, 5, sgpc dc.....	.45
88 Bullock's Oriole, 6, (ch) sgpc dc.....	.50
90 Purple Grackle, 3 snc, L. I. nd.....	.67
91-93 Purple Grackle, 4 snc, L. I. nd.....	.10
94 Purple Grackle, 5, L. I. nd.....	.15
99 Kingbird, N 3, fco dnc.....	.15
101 Arkansas Kingbird, 4, sgpc dc.....	.30
102 Cassin's Kingbird, 4, Riverside, Cal. dc.....	1.10

105	Trall's Flycatcher, 3, fco nd.....	25
108	Trall's Flycatcher, 4 (1ch) fco nd.....	30
116	Western (?) Night-hawk, 2 Beattie Co. Kan. dc.....	60
119	Red-headed Woodpecker, 4, col. O. Davle fco dc.....	50
121	Red-headed Woodpecker, 3, fco nd.....	15
121	Red-headed Woodpecker, 4, nd.....	20
123	Flicker, 4, O. nd.....	14
124	Red-shafted Flicker, 4, sgpc nd.....	25
125	Red-shafted Flicker, 5, sgpc nd.....	35
127	Road-runner, 5, sgpc dc.....	75
128	Yellow-billed Cuckoo, 3, fco nd.....	25
131	Am. Hawk Owl, 7 (1ch) Labrador, dc. The data for this set gives Labrador as the locality, but as it comes through a German dealer, we think it can be set down as the European species.....	5.00
133	Western Red-tail Hawk, 2, Cala? 2nd handsome specimens.....	1.25
134	Red-tail Hawk, 1snc, Mid. Co. Ct. dc.....	60
135	Swainson's Hawk, 2, Los Angeles, Cala dc.....	1.25
138	Mourning Dove, 2, San Diego, Cal. dc.....	0.5
142-143	Chachalaca, 2, Starr Co. Tex. dc.....	2.25
145	Oregon Ruffed Grouse, 6, Coos Co., Oregon dc.....	2.00
146	Texan Quail, 14, Lee Co., Tex. dc.....	1.25
148	Wurdeniann's Heron, 3, Cape Sable, Fla. dc.....	3.00
149	American Egret, 4, Tampa, Fla. dnc.....	50
150	Snowy Heron, 3snc, Tallahassee, Fla. dc.....	30
151	Snowy Heron, 4, Tampa, Fla. dc.....	45
152	Reddish Egret, 3snc, Tampa, Fla. dc.....	65
159-162	Black-crowned Night Heron, 3, L. I. nd.....	20
163-165	Bc. Night Heron, 3snc, L. I. nd.....	20
166	Bc. Night Heron, 1snc, L. I. nd.....	25
167-168	White-crowned Night Heron, 4, Jeff Co., Tex. dc.....	50
170	Golden Plover, 4, Iceland dc.....	1.15
171	Golden Plover, 4 (1ch), Scotland dc.....	1.00
172	Ringed Plover, 4, Iceland dc.....	50
173	Ringed Plover, 3, England dc.....	35
173	European Woodcock, 4, Sweden dc.....	4.00
176	English Snipe, 3snc, Eng. dc.....	50
177	Willet, 4, Beau, Co., S. C. dc.....	1.00
178	Long-billed Curlew, 4, England dc.....	1.50
181	Sora Rail, 13snc, Hen. Co., Minn. dc.....	1.00
185	Pintail, 7 (2ch), Lapland dc.....	1.50
186	Widgeon, 7, 1 brk., Iceland dc.....	1.00
187	Shoveller, 8, Russia dc.....	1.50
188	Blue-winged Teal, 11 (1ch), Devil's Lake, Dak. dc.....	2.25
189	Am. Golden-eye, 7, Russia dc.....	3.75
191	Eider, 4, Finland, dc.....	1.00
192	Am. Sheldrake, 10, Norway dc.....	4.00
197	Brandt's Cormorant, 4, Farralone Is. dnc.....	90
200	Glaucous Gull, 2, Greenland dc.....	1.15
201	Gt. Black-backed Gull, 2, Sweden dc.....	60
202	Western Gull, 3, Farralone Is. dc.....	75
203	Herring Gull, 2snc, Eng. dc.....	35
210-212	Common Tern, 2, L. I. N. Y. dc.....	08
222-223	Western Grebe, 5, Devil's Lake, Dak. dc.....	2.00
224	Am. Eared Grebe, 4, Cal. dnc.....	75
225	Black-throated Diver, 1snc, Lapland dc.....	75
227-229	Tufted Puffin, 1, Farralone Is. dc.....	1.00
230	Cassin's Auk, 1, Farralone Is. dc.....	2.25
231	Black Guillemot, 2, Grand Menan dnc.....	30

Single Eggs.

The figures in the first column at the left, give the number of 1st-class single eggs in the collection. The second column, the number of 2d-class ones.

The prices quoted are for a single 1st-class specimen of the species named.

Where we have 2d-class specimens, we will sell them for *one-half* these prices.

Orders under 30c must contain 5c. and under \$1.00, 10c. additional for postage and packing. Over \$1.00 will be sent prepaid.

Always name additional specimens that can be used as substitutes in case we should be out of those most desired at the time of receiving order. In case this is not done we will take equally desirable specimens from our stock to fill the order or will return your money.

10	1	Wood Thrush.....	02
4	11	Robin.....	01
15	2	Mockingbird.....	03
7	3	Catbird.....	01
2	3	Brown Thrasher.....	01
3	3	Cal. Bluebird.....	05
10	5	Blue-gray Gnatcatcher.....	12
2	2	Cactus Wren.....	07
8	2	Parula Warbler.....	10
5	7	Yellow-breast Chat.....	04
3	W.	Warbling Vireo.....	08
2	2	Belt's Vireo.....	08
4	4	White-rumped Shrike.....	06
1	2	Barn Swallow.....	01
1	2	Ark. Goldfinch.....	12
4	3	Chipping Sparrow.....	01
4	3	Field Sparrow.....	02
12	6	Song Sparrow.....	01
2	2	Spurred Towhee.....	15
1	1	Canon Towhee.....	18
9	9	Cal. Brown Towhee.....	06
2	2	Cardinal Grosbeak.....	03
4	3	Indigo Bunting.....	03
16	6	Cowbird.....	01
12	4	Red-winged Blackbird.....	01
5	5	Bullock's Oriole.....	05
10	10	Purple Grackle.....	03
4	4	Florida Grackle.....	05
10	10	Bronzed Grackle.....	03
15	15	Crow.....	03
3	1	Florida Crow.....	15
2	2	Kingbird.....	02
8	4	Trall's Flycatcher.....	05
10	10	Red-headed Woodpecker.....	05
3	3	Red-shafted Flicker.....	01
4	4	Road-runner.....	13
2	2	Yellow-billed Cuckoo.....	06
2	2	Cal. Screech Owl.....	40
3	3	Western Great Horned Owl.....	1.00
1	1	Swainson's Hawk.....	50
5	5	Mourning Dove.....	02
4	4	Great Blue Heron.....	15
25	25	Black-crowned Night Heron.....	05
2	2	Mallard.....	10
40	7	Common Tern.....	03

We have decided to break the sets, if any of our patrons desire, and can offer the following species, for the first time, as single eggs. Write quick if you desire any of them, for the few left will soon be sold at the prices we quote

Black-crested Flycatcher.....	\$.40
Ground Tit.....	.60
Tufted Titmouse.....	.60
Cal. Bush Tit.....	.12
Carolina Wren.....	.10
Cedar Waxwing.....	.05
Purple Martin.....	.12
Tree Swallow.....	.08
Lawrence's Goldfinch.....	.20
Sharp-tailed Finch.....	.35
Cal. Song Sparrow.....	.05
Rusty Song Sparrow.....	.25
Lazuli Bunting.....	.15
Blue Grosbeak.....	.35
Cassin's Kingbird.....	.30
Western Night-hawk.....	.35
Hawk Owl.....	1.00
Belted Kingfisher.....	.15
Sora Rail.....	.10
Pintail.....	.25
Widgeon.....	.20
Shoveller.....	.25
Blue-winged Teal.....	.25
Golden-eye.....	.60
Am. Sheldrake.....	.50
Brandt's Cormorant.....	.25
Glaucous Gull.....	.60
Gt. Black-backed Gull.....	.35

Western Gull.....	30
Herring Gull.....	20
Western Grebe.....	50
Am. Eared Grebe.....	20
Black Guillemot.....	18
Wild Turkey.....	35
Western Red-tail Hawk.....	70
Red-tail Hawk.....	40
Chachalaca.....	1.00
Oregon Ruffed Grouse.....	40
Texan Quail.....	10
Murdermann's Heron.....	1.00
American Egret.....	22
Snowy Heron.....	10
Louisiana Heron.....	18
Reddish Egret.....	25
White-crowned Night Heron.....	20
Least Bittern.....	15
Golden Plover.....	50
Ringed Plover.....	15
European Woodcock.....	1.50
English Snipe.....	20
Willet.....	30
Long-billed Curlew.....	40

Birds' Nests.

If ordered by mail, add 5c additional for postage and packing on each nest, except Red-winged Blackbird for which you must add 10c and Crow Blackbird 20c; all others 5c.

2 Phalnopepla.....	\$.10
2 Parula Warbler.....	10
1 Yellow Warbler.....	.05
1 American Redstart.....	.05
2 Red-eyed Vireo.....	.05
2 Am. Goldfinch.....	.05
1 Arizona Goldfinch.....	.05
1 Yellow-winged Sparrow.....	10
1 Field Sparrow.....	.05
3 Song Sparrow.....	.05
3 Indigo Bunting.....	.05
2 Red-winged Blackbird.....	.05
1 Orchard Oriole.....	10
1 Crow Blackbird.....	.05
1 Scissor-tailed Flycatcher.....	10
4 Pewee.....	.05
1 Traill's Flycatcher.....	.05

Address FRANK H. LATTIN, ALBION, N. Y.

Owing to the extremely low rates that we sold eggs during April, only a very few collectors purchased "Davie eggs" and from present outlook those few will have a "snap" on the prize contest. Only a single collector has sent in an order of \$5.00 or over and only two or three of over \$2.00. Remember, if you do not mail your order until MAY 15th, it will count in the contest. Also remember that we have concluded to "break the sets" and so offer many new species as samples this month and also that you can send in orders for Davie Eggs at these prices until June 10th; but in order to compete for the prizes they must be mailed by May 15th.

New Directory !

COLLECTORS' ATTENTION ! !

The undersigned are engaged in publishing the largest and finest Oologists' and Ornithologists' Directory ever published. It will be strictly first-class in all respects, printed on fine book paper in clear, legible type and neatly bound in serviceable binding. It will postively be issued, without fail on August 5, 1889. No time or expense will be spared in making it as complete and reliable as possible. We need the help of every live collector. Names inserted free of charge. Do not neglect this opportunity, but send name and address plainly written, on postal, immediate y. Exchange notices, of 25 words or less, 10c.; over 25 and less than 40, 15c. A limited number of only strictly reliable advertisements will be inserted at the following low rates: 1 in., single column, \$.75, double column, \$1.25; half page, \$3.50; page \$6.00. Price of Directory, 30c.

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SAMPLES.

For the convenience of our patrons we have arranged the following sets of samples any of which will be sent prepaid upon receipt of price:

Trays, 4 sizes.....	05
Cotton for lining trays and cabinets six samples, 2 grades, 4 colors.....	03
Gummed Labels, useful for any business, 10 styles.....	05
Tags, 4 styles.....	02
Datas, Labels and Blanks, sheet of 20 Samples.....	02
Checking List, contains names and numbers, both Ridgeway's and A. O. U.,	02
Cork, 3 grades.....	03
Insect Pins, 8 sizes.....	03

We will send all the above samples, if ordered at one time, for only 20 cts.

FRANK H. LATTIN,

Albion, N. Y.

THE OOLOGIST.

Vol. VI,

ALBION, N. Y., MAY, 1889.

No. 5

AVI-FAUNA OF ORLEANS COUNTY, N. Y.

Compiled by Neil F. Posson, Medina.

The following list is probably not a complete list of all our county birds as I have refrained from naming any but those that are well authenticated, preferring that future rese-arches should add to the list rather than take from it.

I am greatly indebted for assistance in this work, to Rev. J. H. Langille, M. A., whose valuable production, *Our Birds in their Haunts*, written largely upon the birds of this locality, has been a most helpful reference; also, to Mr. George H. Hedley, of Medina, Mr. Frank H. Lattin, of Albion, and Mr. Fred C. Lusk, of Holley; who have kindly given me valuable information concerning many doubtful species.

P. S. An account of the occurrence, within the county limits, of any species not mentioned in this list will be most thankfully received by the compiler.

(Arranged according to Ridgeway's Nomenclature.)

1. *Hylocichla mustelina*. Wood Thrush. Common Summer resident. Breeds. Arrives early in May. Departs early in September.

2. *Hylocichla fuscescens*. Wilson's Thrush. Common Summer resident. Breeds. Arrives early in May. Departs early in Sept.

3. *Hylocichla ustulata swainsoni*. Olive-backed Thrush. Rare migrant. Mr. Frank H. Lattin, of Gaines, reports having found the nest and eggs of this bird in the vicinity of his residence for two successive years, the dates being June 2d, 1880, and June 1st, 1881.

4. *Hylocichla ustulata pallasii*. Hermit Thrush. Rare migrant, occurring early in April, and again in October. Noted one in a dense second-growth, April 7, 1888.

5. *Merula migratoria*. American Robin. Most abundant Summer resident, frequently Wintering here. Breeds. Arrives about the middle of March. Departs late in October.

6. *Galeoscoptes carolinensis*. Catbird. Very common Summer resident. Breeds. Arrives about May 1st. Departs in September.

7. *Horporhynchus rufus*. Brown Thrasher. A rare Summer resident. Breeds.

8. *Sialia sialis*. Bluebird. Abundant Summer resident. Breeds. Arrives late in February or early in March. Departs in November.

9. *Regulus calendula*. Ruby-crowned Kinglet. Spoken of by Langille as a common migrant, occurring in April and October; and perhaps some remaining here to breed.

10. *Regulus satrapa*. Golden-crowned Kinglet. Common migrant, occurring about the middle of April, and again about the middle of October.

11. *Parus atricapillus*. Black-capped Chickadee. Common resident. Breeds.

12. *Sitta carolinensis*. White-bellied Nuthatch. Resident and common. Breeds.

13. *Sitta canadensis*. Red-bellied Nuthatch. Rare migrant sometimes seen in Winter. Noted a pair in company with the preceding species in a hemlock grove, Feb. 22, 1889.

14. *Certhia familiaris rufa*. Brown Creeper. Abundant during Spring and Autumn migrations, and frequently seen in Winter.

15. *Troglodytes aedon*. House Wren. Common Summer resident. Breeds. Arrives about May 1st.

16. *Anorthura troglodytes hyemalis*. Winter Wren. Spoken of by Langille.

17. *Telmatorhynchus palustris*. Long-billed Marsh Wren. Summer resident. Common in certain localities, where it breeds. Arrives in May. Departs late in September.

18. *Cistothorus stellaris*. Short-billed Marsh Wren. Reported by Langille as occurring in considerable numbers in Tonawanda Swamps, where it breeds. Arriving early in May, and departing early in September.

19. *Mniotilta varia*. Black-and-white Creeping Warbler. Common Spring and Autumn migrant.
20. *Helminthopaga chrysoptera*. Golden-winged Warbler. Spoken of by Langille as a Summer resident here, arriving during the second week of May, and remaining until September. Breeds.
21. *Helminthopaga peregrina*. Tennessee Warbler. Rare migrant. Reported by Mr. George H. Hedley and Mr. Frank H. Lattin.
22. *Parula americana*. Blue Yellow-backed Warbler. This bird has been taken here by Geo. H. Hedley.
23. *Perisoreglossa tigrina*. Cape May Warbler. Reported by Langille as being "not infrequently found here during the migration."
24. *Dendroeca aestiva*. Summer Yellowbird. Yellow Warbler. Abundant Summer resident. Breeds. Arrives the last of April or first of May. Departs in September.
25. *Dendroeca cerulea*. Black-throated Blue Warbler. Not an uncommon migrant. Reported by Geo. H. Hedley.
26. *Dendroeca coronata*. Yellow-rumped Warbler. Abundant Spring and Autumn migrant, occurring the last of April and the last of October.
27. *Dendroeca maculosa*. Black-and-yellow Warbler. This and the following species have both been taken by Mr. Hedley. This occurs as a migrant, while Langille says the following is a common Summer resident.
28. *Dendroeca cerulea*. Coerulean Warbler. See above.
29. *Dendroeca pennsylvanica*. Chestnut-sided Warbler. Not uncommon Summer resident. Breeds. Arrives early in May. Departs about middle of October.
30. *Dendroeca castanea*. Bay-breasted Warbler.
31. *Dendroeca blackburnia*. Blackburnian Warbler. This and the preceding species have both been taken by Mr. George Hedley. Both occur as migrants.
32. *Dendroeca virens*. Black-throated Green Warbler. Common Summer resident in Tonawanda Swamp. Plentiful elsewhere during migrations. Arrives early in May. Departs in October.
33. *Sturnus anversipennis*. Golden-crowned Thrush. Common Summer resident. Arrives early in May.
34. *Sturnus nactus*. Small-billed Water Thrush. Langille considers this species a somewhat common Summer resident in this locality, arriving during the last of April, and breeding here.
35. *Geothlypis philadelphia*. Mourning Warbler. Not uncommon Summer resident in thickets. Reported by Mr. Hedley.
36. *Geothlypis trichas*. Maryland Yellow-throated Warbler. Reported by Mr. Hedley.
37. *Myiodiodes mitratus*. Hooded Warbler. Spoken of by Langille as a common Summer resident, arriving early in May.
38. *Myiodiodes canadensis*. Canadian Flycatching Warbler. Not uncommon Summer resident in swampy places. Reported by Mr. Hedley.
39. *Setophaga ruticilla*. American Redstart. Common Summer resident. Breeds. Arrives the first of May.
40. *Vireosyltia olivacea*. Red-eyed Vireo. Common Summer resident. Breeds. Arrives early in May. Leaves early in October.
41. *Vireosyltia philadelphia*. Philadelphia Vireo. Langille says that this species is occasionally found here.
42. *Vireosyltia gilva*. Warbling Vireo. Not uncommon Summer resident. Breeds. Arrives early in May. Departs during the last of September.
43. *Lanius flavifrons*. Yellow-throated Vireo. Not uncommon Summer resident. Breeds. Arrives during the last of April or first of May.
44. *Lanius solitarius*. Blue-headed Vireo. Reported by Langille as a rare migrant in May.
45. *Lanius borealis*. Great Northern Shrike. Frequent Winter visitant. Generally noted during January and February.
46. *Lanius ludovicianus*. Loggerhead Shrike. This bird has been taken by Mr. Hedley. It is a straggler.
47. *Lanius ludovicianus excubitorides*. White-rumped Shrike. Not uncommon Summer resident. Breeds. Arrives about the first of April or earlier.
48. *Ampelis garrulus*. Northern Waxwing. Reported by Langille as appearing regularly in flocks in Winter.

49. *Ampelis cedrorum*. Cedar Waxwing. Common Summer resident, sometimes seen in Winter. Arrives during March. Breeds.
50. *Progne subis*. Purple Martin. Common Summer resident. Arrives about the middle of April. Leaves during the last days of August. Abundant about the business blocks of Medina in Summer, in the cornices of which it breeds.
51. *Petrochelidon lunifrons*. Cliff Swallow. Abundant Summer resident. Breeds. Arrives in mid-April. Departs in August or September.
52. *Hirundo erythrogastra*. Barn Swallow. Abundant Summer resident. Breeds. Arrives late in April. Leaves late in August.
53. *Tachycineta bicolor*. White-bellied Swallow. Common Summer resident. Breeds. Arrives during the second week of April. Leaves in September.
54. *Cotile riparia*. Bank Swallow. Abundant Summer resident. Breeds. The last of the swallows to arrive in the Spring.
55. *Stelgidopteryx serripennis*. Rough-winged Swallow. Not uncommon Summer resident. Breeds. Occurs with the preceding species.
56. *Pyrranga rubra*. Scarlet Tanager. Common Summer resident. Breeds. Arrives the first or second week in May. Leaves in the latter part of Summer.
57. *Pinicola enucleator*. Pine Grosbeak. An occasional visitant in severe Winters.
58. *Passer domesticus*. English Sparrow. Superabundant prolific resident and a nuisance.
59. *Carpodacus purpureus*. Purple Finch. Common Summer resident. Breeds. Arrives between March 14th and April 1st. Leaves the last of October.
60. *Loxia curvirostra americana*. American Crossbill. A Winter straggler, occurring occasionally at irregular intervals. Specimens have been taken by Geo. H. Hedley.
61. *Aegithys linaria*. Common Redpoll. Not uncommon Winter visitant.
62. *Astragalinus tristis*. American Goldfinch. Abundant Summer resident, occasionally seen in Winter. Arrives, generally in March and stays until late in October. Breeds.
63. *Chrysomitris pinus*. Pine Siskin. Irregular Winter visitant. Not uncommon.
64. *Plectrophanes nivalis*. Snow Bunting. Abundant Winter visitant. Common from December to March.
65. *Centrophanes lapponicus*. Lapland Longspur. Reported by Langille as a Winter visitant. "Not common."
66. *Passerculus sandwichensis savanna*. Savannah Sparrow. Common Summer resident. Breeds. Arrives in mid-April. Leaves late in October.
67. *Pooecetes gramineus*. Vesper Sparrow. Abundant Summer resident. Breeds. Arrives about April 1st. Leaves late in October.
68. *Coturniculus passerinus*. Yellow-winged Sparrow. Found by Langille at Pine Hill. He reports it as "not at all common," being "confined to certain dry or sandy fields;" arriving in May and leaving in September; probably breeding.
69. *Zonotrichia leucophrys*. White-crowned Sparrow. A not uncommon migrant, occurring about the first of May and again about the first of October.
70. *Zonotrichia albicollis*. White-throated Sparrow. A not uncommon migrant, occurring in April and May and again in September and October.
71. *Spizella montana*. Tree Sparrow. An abundant migrant, frequently Wintering here. Most numerous during the last of April and in October.
72. *Spizella domestica*. Chipping Sparrow. Abundant Summer resident. Breeds. Arrives during the first week in April. Leaves about the middle of October.
73. *Spizella pusilla*. Field Sparrow. Common Summer resident. Breeds. Arrives about April 1st.
74. *Junco hyemalis*. Black Snowbird. Abundant migrant, frequently remaining over Winter. Generally found here from the middle of March to the middle of April and again during the entire month of October.
75. *Melospiza fasciata*. Song Sparrow. Abundant Summer resident. Breeds. Arrives early in March. Leaves the last of October. Occasionally one is seen in Winter.
76. *Melospiza palustris*. Swamp Sparrow. Reported by Langille as occurring in Tonawanda Swamp, where it breeds; arriving about the 20th of April. Summer resident.
77. *Pipilo erythrophthalmus*. Chewink; Towhee. Rare Summer resident, arriving early in April. Noted one fitting about the brush-piles of a shady grove, April 7, 1888.

No instances have been recorded of its breeding within the county.

78. *Zamelodia ludoviciana*. Rose-breasted Grosbeak. Not uncommon Summer resident. Breeds. Arrives during the first or second weeks of May.

79. *Passerina cyanea*. Indigo Bunting. Common Summer resident. Breeds. Arrives about May 10th.

80. *Dolichonyx oryzivorus*. Bobolink. Abundant Summer resident. Breeds. Arrives about May 1st. Departs in August.

81. *Molothrus ater*. Cowbird. Abundant Summer resident. Breeds. Arrives generally during the first week in April, although they have been noted as early as March 18th.

82. *Agelaius phoeniceus*. Red-and-buff-shouldered Blackbird. Abundant Summer resident. Breeds. Arrives about March 20th. Leaves the middle of October.

83. *Sturnella magna*. Meadow Lark. Abundant Summer resident, sometimes seen in Winter. Arrives about March 20th. Leaves about October 15th. Breeds.

84. *Icterus galbula*. Baltimore Oriole. Abundant Summer resident. Breeds. Arrives about May 1st. Leaves about September 1st.

85. *Scolecophagus ferrugineus*. Rusty Blackbird. Reported by Langille as a plentiful migrant, occurring early in April and again in October.

86. *Quiscalus purpureus*. Purple Grackle. Abundant Summer resident. Breeds. Arrives during the latter part of March. Departs about the middle of September.

87. *Corvus frugivorus*. American Crow. Abundant resident. Breeds.

88. *Cyanocitta cristata*. Blue Jay. Resident and breeds. Not common.

89. *Eremophila alpestris*. Horned Lark. Common resident. Breeds in March. Most abundant from February to May and in October.

90. *Tyrannus carolinensis*. Kingbird; Bee Martin. Abundant Summer resident. Breeds. Arrives the first week in May. Departs about September 1st.

91. *Myiarchus crinitus*. Great Crested Flycatcher. Not uncommon Summer resident. Breeds. Arrives during the first week in May.

92. *Sayornis fuscus*. Phoebe Bird; Pewee. Abundant Summer resident. Breeds. Arrives about April 1st. Departs in September.

93. *Contopus virens*. Wood Pewee. Common Summer resident. Breeds. Arrives about the middle of May. Leaves late in September.

94. *Empidonax flaviventris*. Yellow-bellied Flycatcher. This species has been taken by Mr. George H. Hedley.

95. *Empidonax acadicus*. Acadian Flycatcher. Spoken of by Langille as a "Common Summer resident of our upland woods." Breeds.

96. *Empidonax pusillus trilli*. Traill's Flycatcher. Reported by Langille. Breeds. Summer resident.

97. *Empidonax minimus*. Least Flycatcher. Not uncommon Summer resident. Breeds. Arrives last of April or first of May.

98. *Trochilus colubris*. Ruby-throated Hummingbird. Common Summer resident. Breeds. Arrives during the latter part of May. Leaves about the first of September.

99. *Chaetura pelagica*. Chimney Swift. Abundant Summer resident. Breeds. Arrives in mid-April. Departs late in September or early in October.

100. *Caprimulgus vociferus*. Whip-poor-will. Rare Summer resident. The breeding and migration of this bird is not known to the compiler.

101. *Chordeiles popetue*. Nighthawk. Not uncommon Summer resident. Breeds. Arrives early in May. Leaves early in Fall.

102. *Picus villosus*. Hairy Woodpecker. Not uncommon in Winter, and probably a resident.

103. *Picus pubescens*. Downy Woodpecker. Common resident. Breeds. Abundant during the Winter months.

104. *Sphyrapicus varius*. Yellow-bellied Woodpecker. The only instance of the occurrence of this bird in the county (of which I know) is the well authenticated one of the finding of the nest with four young birds by Harry A. Chase, of this place, June 5th, 1886.

105. *Centurus carolinensis*. Red-bellied Woodpecker. Will P. Chase and John P. Chase, of this place, identified a specimen of this bird, June 2d, 1885. This is the only instance I have of its occurrence here. It is a straggler.

106. *Melanerpes erythrocephalus*. Red-headed Woodpecker. Common Summer resident, occasionally seen in Winter. Breeds.

107. *Colaptes auratus*. Yellow-shafted Flicker. Abundant Summer resident. Breeds. Arrives late in March or early in April. Departs in September.
108. *Ceryle alcyon*. Belted Kingfisher. Common Summer resident. Breeds. Arrives in March or April. Departs late in September.
109. *Coccyzus americanus*. Yellow-billed Cuckoo. Rare Summer resident. Breeds.
110. *Coccyzus erythrophthalmus*. Black-billed Cuckoo. Common Summer resident. Breeds. Arrives during the latter part of May.
111. *Asio americanus*. American Long-eared Owl. Not uncommon resident, reported by Mr. Frank H. Lattin.
112. *Asio accipitrinus*. Short-eared Owl. This bird has been taken here in Winter Mr. Will P. Chase.
113. *Strix nebulosa*. Barred Owl. Rare. It has been taken by Mr. Fred C. Lusk, of Holley.
114. *Nyctale acadica*. Saw-whet Owl. Not uncommon resident. Breeds.
115. *Scops asio*. Screech Owl. Common resident, most noticeable in Winter. Breeds.
116. *Bubo virginianus*. Great Horned Owl. Common resident. Breeds.
117. *Nyctea scandiaca*. Snowy Owl. Not uncommon Winter visitant.
118. *Falco peregrinus naevius*. American Peregrine Falcon; Duck Hawk. This bird has been taken in this county by Mr. J. Brilgman, of Holley, as well as by Langille.
119. *Aesalon columbarius*. Pigeon Hawk. Common migrant in April and September.
120. *Tinnunculus spawerius*. Sparrow Hawk. Common Summer resident. Breeds. Arrives about the middle of April. Departs late in September.
121. *Pandion haliaetus carolinensis*. American Osprey; Fish Hawk. Reported by Mr. John P. Chase, April 22d, 1888.
122. *Circus hudsonius*. Marsh Hawk. Common Summer resident. Breeds. Arrives early in April. Departs early in the Fall.
123. *Accipiter Cooperi*. Cooper's Hawk. Common summer resident, breeds.
124. *Accipiter Fuscus*. Sharp-shinned Hawk. Common summer resident, breeds. Arrives during April. Occasionally seen in mild winters.
125. *Astur atricapillus*. American Goshawk. Rare winter visitant, reported by Mr. Wm. Palmer, of Holley.
126. *Buteo borealis*. Red-tailed Hawk. Our most abundant hawk, a summer resident, although occasionally seen in winter. Breeds. Arrives late in February or early in March.
127. *Buteo lineatus*. Red-shouldered Hawk. Rare. Taken by Mr. Fred C. Lusk, of Holley.
128. *Buteo pennsylvanicus*. Broad-winged Hawk. This bird has been taken by Mr. Fred C. Lusk.
129. *Archibuteo lagopus*. Rough-legged Hawk. Spoken of by Langille as a not uncommon migrant, occurring about the middle of April and again the last of October or first of November.
130. *Haliaeetus leucocephalus*. White-headed Eagle. Bald Eagle. Not uncommon along Lake Ontario, where it has been known to breed.
131. *Eopetistes migratoria*. Passenger Pigeon. Very rare summer resident. Breeds. Reported by Frank H. Lattin.
132. *Zenaidura macroura*. Mourning Dove. Common summer resident, occasionally seen in winter. Arrives about March 20th, departs the last of September. Breeds.
133. *Bonasa umbellus*. Ruffed Grouse. Common resident. Breeds.
134. *Ortyx virginia*. Bob-White. American Quail. Rare resident. Breeds.
135. *Ardea herodias*. Great Blue Heron. Common summer resident. Breeds. Arrives about April first.
136. *Butorides virescens*. Green Heron. Noted a single one August 14, 1888. It probably occurs as a summer resident, and if so must breed.
137. *Botaurus lentiginosus*. American Bittern. Not uncommon summer resident arriving in April and leaving in October.
138. *Ardetta exilis*. Least Bittern. Common summer resident. Breeds.
139. *Streptopelia interpres*. Turnstone. Reported by Langille as a migrant, passing south in the latter half of September; observed on the shores of lake Ontario.
140. *Suaresbithelvetica*. Black-bellied Plover. This and the following species

were both observed by Langille on the shore of Lake Ontario as migrants, occurring late in April or early in May and again in the latter part of September.

141. *Charadrius dominicus*. American Golden Plover. See above.

142. *Oxyechus vociferus*. Killdeer. Abundant summer resident. Breeds. Arrives the last of March or first of April. Departs late in September.

142. *Aegialites semipalmatus*. Semipalmated Plover. Reported by Frank H. Lattin.

144. *Philohela minor*. American Woodcock. Common summer resident. Breeds. Arrives early in April.

145. *Gallinago media wilsoni*. Wilson's Snipe. A common migrant during the latter part of April.

146. *Actodromus minutilla*. Least Sandpiper. According to Langille this and the following species usually occur together as migrants, being common along the lake late in April or early in May and again from late July to early October.

147. *Ereunetus pusillus*. Semipalmated Sandpiper. See above.

148. *Totanus melanoleucus*. Greater Yellow-legs; Tell-tale.

149. *Totanus flavipes*. Yellow-legs. This and the preceding species are migrants across the county in April and again in August and later. The former species being the more common. Langille.

150. *Bartramia longicauda*. Bartram's Sandpiper. Field Plover. Not uncommon summer resident, arriving late in April and breeding here.

151. *Tringoides macularius*. Spotted Sand-piper. Common summer resident. Breeds. Arrives about May first.

152. *Rallus virginianus*. Virginian Rail. Not uncommon Summer resident. Breeds. Arrives late in April departs in October.

153. *Porzana carolina*. Sora. Common summer resident. Breeds. Arrives late in April and leaves in October.

154. *Gallinula galeata*. Florida Gallinule. Common summer resident. Breeds. Arrives in April. Leaves in October.

155. *Fulica americana*. American Coot. Spoken of by Langille as a common migrant in April and October.

156. *Olor americanus*. Whistling Swan. A rare migrant. Two specimens were taken near Medina in the spring of 1886.

157. *Bernicla canadensis*. Canada Goose. Abundant migrant occurring in March and April and staying some three or four weeks; and again during the entire month of October.

158. *Bernicla canadensis hutchinsii*. Hutchins's Goose. A not uncommon migrant occurring with the preceding species.

159. *Anas boschas*. Mallard. Reported by Langille as a common migrant, occurring in March and April and again in September and later.

160. *Anas obscura*. Black Mallard. Our most common duck. Migrant, occurring in April and again in September and October. Langille says that quite a few remain here to breed.

161. *Dafila acuta*. Pintail. This and the following species, according to Langille occur more or less in company with each other being migrants in April and again in September and October.

162. *Mareca americana*. Baldpate. See above.

163. *Querquedula discorse*. Blue-winged Teal.

164. *Nettion carolinensis*. Green-winged Teal. This and the preceding species are reported by Langille as migrants, occurring in April and again in September and later.

165. *Aix sponsa*. Wood Duck. Summer Duck. Not uncommon summer resident Breeds. Arrives about April 1st.

166. *Fulix marila*. Scaup Duck. Common migrant. Occurring in mid-April.

167. *Fulix collaris*. Ring-billed Blackhead. Spoken of by Langille as a rather rare migrant. He reports the taking of a pair on the Erie canal.

168. *Changula albeola*. Butterball; Bufflehead. Common migrant, being most plentiful in April and October.

169. *Mergus serrator*. Redbreasted Sheldrake. This species is with us in large numbers in late autumn and early spring remaining during winter if the waters are sufficiently open. Langille.

170. *Phaethon flavirostris*. Yellow-billed Tropic Bird. The extraordinary occurrence of this straggler from the tropics is reported by Langille. A young male found in a clover field after a heavy storm from the southwest, was brought to him alive in September, 1876.

171. *Larus argentatus smithsonianus*. American Herring Gull. Noted a single specimen at the shore of Lake Ontario near the mouth of Johnson's Creek, August 7, 1888.
172. *Dytes aretus*. Horned Grebe. This species is reported by Langille as a migrant in April and October.
173. *Podilymbus podiceps*. Thick-billed Grebe. Not uncommon summer resident. Breeds along lake Ontario.
174. *Colymbus torquatus*. Loon. Not uncommon migrant. Have seen it during the first days of May.

SUMMARY OF THE ABOVE LIST.

Resident species.....	14
Summer resident.....	84
Migrant.....	46
Winter visitant.....	9
Stragglers.....	4
Unclassified, i. e., cannot be classified with certainty.....	17
Total.....	174
Number of species that have been known to breed within the county.....	89

The Robin.

The Robin, *Turdus migratorius*, is one of our very common species of birds. His dress and habits are so well known to all our readers that a detailed description will be unnecessary.

How eagerly we look for his first appearance in Spring! He is among the first arrivals, following usually the Sparrows and Bluebirds. After he has arrived, we feel that the "icy hand of Winter" is relaxing and it will soon be removed from the streams and fountains. Then all nature will quickly respond to the warm breath of Spring; the buds will swell and burst; the flowers bloom; other birds will come; and all will join in a general thanksgiving for deliverance. What melodious notes issue from his throat, when mounted on the topmost bough of some tall tree near our dwellings. How inspiring his song! How it thrills the nerves of a lover of nature! He is now seen at his best. It will soon be time for him to commence housekeeping. After he has helped prepare a home, his time will be fully occupied in attending to the wants of his mate and his little family which will soon appear. The robins commenced to build their nest not far from the first of May. They are made of straw, dried grasses, weeds, and etc., lined with finer grasses. The blue eggs, usually four in number, soon appear. The eggs are hatched in a short time. Then

the robins' work begins. The nest is built in some tree, on some fence, under some shed, on a root under some bank, or just where it pleases the fancy of the bird to build.

Last summer while visiting my old home in Buckland, Mass., I discovered what I called a curiosity in the birds' nest line. I will call it a double Robin's nest:

It was built on a board nailed to two upright joists under my brother's wagon shed. Old horseshoes, chains, etc. have been hung on this board for years; and someone took down or hung up something there very often during the busy season of the year. I am sorry to say it was deserted when I found it, so I couldn't watch the birds and unravel the mystery. There were two perfectly formed nests built closely together and interwoven at the bottom. In one nest there were four eggs; in the other, one. I couldn't see anything wrong about either nest or eggs to cause the birds to leave one and build the other by its side. Could there any such thing happen as that the male robin had two mates and they built side by side? Have two pairs of Robins been known to build side by side, so that the nests are united at the bottom and separate at the top? These are questions I submit to the readers of the OOLOGIST for explanation. Have any of you found similar structures? Any one who has taken the time to watch a pair of robins feed their young, can get a little idea

of the amount of food required to satisfy their hunger. We can't estimate the amount of good they do the farmers in the number of injurious insects they destroy in one season. Still the Robin has a good many enemies among the human family. Because they think he helps himself too freely to their cherries, strawberries and other small fruits. A good many have been destroyed because of these propensities to take fruit. We believe that they pay back more than an hundred-fold for the fruit destroyed, by the good they do in keeping under subjection our insect enemies.

Let us then befriend the Robin and do all we can to raise him in the estimation of those who wish to injure or destroy him. It is true that we have laws to protect our feathered friends. Then let us see that they are enforced, when reason fails to produce a sentiment in favor of protection. Let us be ready to give him a hearty welcome when he again visits us the coming Spring.

ERWIN G. WARD, Palmer, Mass.

Davie's Egg Check List.

From present indications this invaluable work will be mailed to advance purchasers sometime during the month of May.

Under date of April 20th Mr. Davie writes:—"At this writing the book is in type as far as the Yellow-throated Warbler, 663 A. O. U., and this A. M. I received Mr. Norris' introduction.

The work will contain a *complete analytical* Index—every common name given to each species will be given. I have this big job complete as far as Shrikes and my preface is written.

In regard to the price of my book you may state that to those who have ordered of you or who may send you their orders for the work before it is out of press, which will be in the first part of May. The price will be *only* \$1.00, after that time the price will be advanced to \$1.25 in paper cover and \$1.75 in cloth binding. This is final on the retail prices.

Very truly, Oliver Davie".

The Crow in the North.

BY AVE C. CAYE, RIVEESIDE, N. B.

Mr. Willard N. Clute in the March OÖLOGIST enquires about the Crows' northern range in Winter.

In this locality the immense flocks which congregate in the Autumn, gradually dwindle away, until in December only a few of their dusky forms may be seen in the Winter landscape, flying high overhead or searching the snow-covered fields for the wherewithal to satisfy their cravings of hunger. I should judge that fully seven-eighths of our whole crow population leaves us in Winter, probably seeking a more congenial climate.

Their return in the Spring varies according as the season is cold and stormy or bright and beautiful.

The latter part of March usually ushers in many forerunners of the sable band. Before the sweet-scented May flowers show their pink cheeks among the mossy hillocks, the Crow is to be seen almost everywhere. As the Allert County Express puffs along through the broad meadows which border our sea line, hundreds of these birds give her a discordant greeting from their hoarse throats; on both sides the extending acres are literally peppered with their black forms.

When the sun drives his flashing span over the western hills, and the shadows flutter to and fro across evening's calm face, the Crow betlinks him of his favorite roosting place, out on Grindstone Island. This island is thickly wooded with spruce and fir, the only mask of civilization being the tall white spire of the lighthouse.

For two hours every evening an irregular procession of Crows, almost numberless, may be seen leisurely flying hither. Do they have select roosting spots in every place? In nesting time the same thing occurs—the larger number probably being male, while the females guard their speckled treasurers in the lonely forests among the hills.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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ALBION, Orleans Co., N. Y.

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Until May 20th we will receive subscriptions for Davie's Check List bound in paper at \$1.00 or in cloth at \$1.50, after this date prices will be as quoted on last page.

So valuable will this work prove to the Oologist that we will guarantee that not a single purchaser would be willing to part with his copy for \$5.00, one would be safe in saying \$10.00, could he not obtain another.

The Prize Article Contest.

In reply to our request in April Oologist 15 collectors kindly volunteered to pass their opinion on the articles in the '88 OOLOGISTS that entered this contest.

The result is undoubtedly as fair as one as could be obtained under the circumstances and we think will give the best of satisfaction.

Each judge was entitled to cast his ballot (or rather three ballots) for *three* articles, a few voted for *one* only, a few for *two* and a few more for articles taken from other publications which could not be counted. The whole number of ballots cast were 37 and were given to the articles named as follows:

The Bald Eagle, page 70,	6
A Day with the Gulls, p. 118,	5
The Family Rallidae, p. 85,	4
Some of Our Falconidae, p. 128,	3
Notes for Collectors, p. 126,	3
In Defense of Birds, p. 121,	2
Reminiscences of 1886, p. 119,	2
Advice to Live Collectors, p. 69,	2
Eggs of Mississippi Kite, p. 105,	2

The following articles each received one vote:

Nidification of Ictinea Mississippiensis, p. 74; Loon, p. 103; Nesting of the Chestnut-sided Warbler, p. 73; Black Snowbird, p. 125; Useful Contrivances, p. 152; Annual Trip to Seven Mile Beach, p. 120; Among the Warblers, p. 76; The Great Auk, p. 123.

The \$20.00 worth of Job Lots offered will be distributed as follows, viz.:

The Bald Eagle,	\$5.00
A Day Among the Gulls,	5.00
The Family Rallidae,	3.00
Some of Our Falconidae,	2.50
Notes for Collectors,	2.50
Advice to Live Collectors, . . . . .	.50
In Defence of Birds, . . . . .	.50
Reminiscences of 1886, . . . . .	.50
Eggs of Mississippi Kite, . . . . .	.50

Full particulars of another novel contest will be given in June Oologist.

Many of our readers will wonder which of the judges came the nearest to naming the leading prize-winning articles, and to gratify their curiosity, we would say that Mr. Geo. E. Boyd, of Warren Co., Ill., named "A Day with the Gulls," "A Bald Eagle," and "Some of Our Falconidae."

Mr. W. H. Aspinwall, of Washington, D. C., named the first two mentioned above, and for the third "Notes for Collectors."

Mr. W. E. Pratt, of Cook Co., Ill., named the first two and for the third one "Eggs of the Mississippi Kite."

Mr. T. G. Pearson, of Alachua Co., Fla., cast one ballot only, and that for "The Bald Eagle."

Other parties named one, two and even three of the prize winners, but the gentlemen named came the "nearest."

A Bald Eagle's Nest.

On January 5 I took my first egg for the season of '89. A friend of mine while out hunting on New Year's day, saw the nest of a Bald Eagle and asked me to go with him to get the eggs. I was glad of the chance, and on the 5th, after dinner, we started with a lot of cleats, as the tree was a very tall pine and no other trees near it.

We had hard work nailing on the cleats, as it was more than 50 feet to the first limbs. We knew there was something in the nest, because when we reached the tree the old bird flew off of the nest and her mate joined her and they sat on a dead tree not far away to watch the proceedings.

We reached the nest at last, which was a huge affair, about 5 feet broad and almost as thick, composed of pine sticks about as thick as a man's thumb, for the most part, the top was flat, except in the center, where it was depressed a few inches deep and large enough to hold the eggs, and lined with grass and other soft material.

There was one egg in the nest of a dull, whitish or kind of greenish color. The old birds flew pretty close to us, screaming, but did not attack us.

We got home about dark, determined to try it again soon, and see if she would lay the rest of her clutch. The egg when blown was fresh, and must have been laid that day.

On the 14th we went out again and up to the nest and got two eggs which had just commenced to show signs of incubation when blown.

This time the old birds were not so shy, and flew quite close to our heads, uttering harsh notes, but we answered them back and waved our hats at them. We were well pleased with our first set for '89. We afterwards learned that the eagles had occupied the nest for several years.

The first egg measures 7 inches in circumference by $8\frac{1}{2}$ the other way; the next is 7 x 8, and the third $6\frac{1}{2}$ x $7\frac{1}{4}$ inches in circumference.

B. G. Dayton, Fla.

Making Bird's Skins.

I have just read Mr. Ernest E. Thompson's excellent article on making bird and mammal skins, in the March Oologist.

As there are various methods employed in this art, it will not come amiss to give one that is used quite universally among recent collectors. I have given most every method a fair trial, and experience the best results from the following:

After the bird has been skinned and poisoned, and cotton placed in the eye sockets, turn the skin right side out, pull the skin of the head back and make it fit snugly, and arrange all the feathers nicely. Now take a round pluffy piece of cotton, pull one end of it out into a neck and introduce with the forceps to the inside of the skin and run it up firmly into the throat, withdraw the forceps, leaving the cotton in position. Now tuck the cotton that hangs outside, into the skin, being careful not to push it too far forward, as that will raise the feathers on the breast and drive the shoulders apart. It is not necessary to have any cotton in the skull cavity. By having the throat and neck in one piece, it does away with placing a separate piece in the throat and afterwards tying the bill together; it also gives a beautiful curve from bill to breast.

Contrary to what one might suppose, more cotton is placed in the hind part than in fore part.

Beginners will find it to their advantage to tie the wing bones close together and also to take a stitch in the opening; but with practice you will soon be able to do away with both.

In drying the skins I use a paper cylinder made the same caliber as the natural bird. It is a good plan to put the bird half way in and arrange the wing quills nicely, then let it slide the remainder of the way in.

As a preservative, I use a preparation of equal parts of arsenic and powdered alum. The latter ingredient acts as a tanner and sets the feathers more tightly.

Always measure your specimens.

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| 11 Cyprine Coral, Singapore | 39 Cyprine Coral or Shell Door, Bahamas |
| 12 Cyprine Coral, Singapore | 40 Native Lodestone, Magnet Cove, Ark. |
| 13 Cyprine Coral, Ambolma | 41 Olive Shell, Zanzibar |
| 14 Cyprine Coral, E. I. | 42 4 Guinea Pigs, Bahamas |
| 15 Red Sea Stone, Bahamas | 43 Piece of Looftah, Japan |
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OUR PRICES

for 1889 will remain the same as quoted in the *Naturalist's Bulletin* of Sept., '88, and as given and corrected on this page. We have hundreds of specimens not noted on these lists, but from present outlook we think it will be impossible to issue new catalogues before 1890.

CORRECTIONS.

No. 4, Short-handle Egg Drill 21-100 is 15c instead of 25c.

Our stock of the following is exhausted: Shells etc, Voluta junonica, Black African Coral.

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Black-tailed Gnatcatcher,50
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Lusty Song Sparrow,35
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Black Pewee,50
Berlandier's Wren,50
Baird's Flycatcher,25
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Dunlin,35
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European Woodcock,	1.75
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Red Phalarope,	1.00
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Noddy Tern,40
Bridled Tern,	3.50
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A Special Limited 30 day Offer !

Until June 15th we will send you the following articles for only \$1.50.

1 Copy Maynard's Naturalist's Guide	-	-	-	\$1.25
1 Ebony-handled Scapel	-	-	-	.75
17 Back No's of THE OOLOGIST (all different)	-	-	-	1.00
1 Oologist's Handbook	-	-	-	.25

\$3.25

By purchasing large quantities of the Guides and Scapels we have been enabled to obtain special prices and we have decided to give our patrons the benefit of our bargain and let them have the lot for *less money than any dealer* in America can purchase the same goods for at *wholesale*. Our supply is limited and at this offer and price we can spare only 72 (seventy two) sets. Should your order be received after these 72 are sold we will return your money at once.

In order that dealers will not take advantage of this offer and take the entire lot at once, we will not sell any one person over three sets and we also reserve the right not to send over a dozen sets to a single Post Office. Should the articles we offer in this lot be wanted separately they will cost as follows, viz:—

Maynard's Naturalist's Guide	-	-	-	\$1.25
Ebony-handled Scapel	-	-	-	.60
17 back No's of THE OOLOGIST	-	-	-	.40
The Oologist's Handbook	-	-	-	.15

Or until June 15th we will mail you the entire lot by mail *postpaid* for ONLY \$1.50. Read the description of Maynard's Naturalist's Guide below. Address plainly,

Frank H. Lattin, Albion, Orleans Co., N. Y.

MAYNARD'S NATURALIST'S GUIDE.

The most popular work on collecting objects of natural history ever written. It has so long been the standard on the subjects of which it treats that but little requires to be said of it, but for the benefit of those who have never had an opportunity of examining the book, we will give an idea of what it treats by giving a digest of its contents.

How to collect and preserve birds; make skins and mount in all attitudes; collecting, making skins and mounting mammals; collecting and preserving insects of all classes, also where to find them; mounting and preserving fishes, reptiles, and crabs; preserving shells, corals, sponges, starfishes, etc., etc.; bleaching and mounting skeletons; collecting and preserving eggs.

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Every collector should have one or more of our vest pocket note-books, and should always keep one in their pocket so that when they observe anything interesting or unusual they can “dot it down” on the spot. We have just obtained a new lot of note-books, two styles, and offer them at prices so reasonable that a collector cannot afford to be without them.

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C. H. & E. A. GIBBS & CO.

We have just printed a circular explanatory of Gibb's Process, which we will be pleased to send to anyone sending their address. We hold over 300 testimonials, many of them being from leading taxidermists.

SEND TO US FOR TESTIMONIALS.

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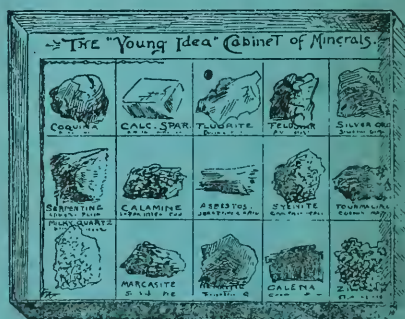
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THE OÖLOGIST.

Monthly. 50c. per Year.

VOL. VI,

ALBION, N. Y., JUNE, 1889.

No. 6

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

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TO EXCHANGE.—Birds Skins for Ridgway's, Coue's or any other good work on Ornithology or Natural History. Collectors send for exchange list. H. L. CHEVILLON, Richmond, Illinois.

WILL GIVE good exchange in first-class bird skins or sets of eggs for a "Coue's Key" or "Ridgway's Manual in good condition, or for desirable sets of eggs, CHARLES D. OLDRIGHT, 706 West 13th St., Austin, Texas

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L. W. Nichols, Jr., Richmond, Ill. m3
Colburn & Lake, No. 1938, 14th St., Washington, D. C. A2

BIRD SKINS.

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F. E. Shoup, Sewanee, Tenn. A3

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V. H. McKinsly, Grant Park, Ill.
Chas. A. Myers, Troy Grove, LaSalle Co., Illinois.
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SEND TO US FOR TESTIMONIALS.

This Process Grows More Popular Each Year.

C. H. & E. A. Gibbs & Co.,
KALAMAZOO, MICH.



IMPORTANT

As we go to press Davie's 3rd Edition has not been received, but we are expecting it daily all advance purchasers can depend upon receiving a copy just as soon as issued.

You can still send in orders for the Davie Eggs at prices quoted in May OOLOGIST.

Only a few remain unsold.



\$3.25

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FOR ONLY

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1 Copy Maynard's Naturalist's Guide	-	-	-	-	\$1.25
1 Ebony-handled Scapel	-	-	-	-	.75
17 Back No's of THE OOLOGIST (all different)	-	-	-	-	1.00
1 Oologist's Handbook	-	-	-	-	.25

\$3.25

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Maynard's Naturalist's Guide	-	-	-	-	\$.25
Ebony-handled Scapel	-	-	-	-	.60
17 back No's of THE OOLOGIST	-	-	-	-	.40
The Oologist's Handbook	-	-	-	-	.15

Or until June 15th we will mail you the entire lot by mail *postpaid* for ONLY \$1.50. Read the description of Maynard's Naturalist's Guide below. Address plainly,

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MAYNARD'S NATURALIST'S GUIDE.

The most popular work on collecting objects of natural history ever written. It has so long been the standard on the subjects of which it treats that but little requires to be said of it, but for the benefit of those who have never had an opportunity of examining the book, we will give an idea of what it treats by giving a digest of its contents.

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Oologist's Directory,30
17 Back numbers Oologist (prem No. 30)50
Oologist without prem. from date to Jan., '90,50
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Egg Case of Periwinkle,35
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Starfish, Martha's Vineyard, fine,25
Shark's Egg,25
Bahama Purple Urchin,15
Six Cards Marine Algæ,50
Vegetable Ivory Apple, fine,50
Pod of Royal Poinciana or Sabre Bean, very curious,35
Rajah or Beetle Nut,15
Brown-banded Sea Bean,10
Red Sea Bean,03
Gray Sea Bean,03
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Trall's Flycatcher.....	25
Burrowing Owl.....	40
Mexican Ground Dove.....	1.00
Wild Turkey.....	75
Willow Ptarmigan.....	1.00
White-crowned Night Heron.....	35
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Noddy Tern.....	75
Sooty Tern.....	50
Bridled Tern.....	5.00
Black Tern.....	15
Least Tern.....	10
American Eared Grebe.....	50

If you desire to obtain anything on the above list in exchange, send on your eggs at once; if you have no eggs, but have other desirable specimens in quantity, write what you have with price; or will exchange for collections of fine Postage Stamps, or books on Natural History, or choice Indian Relics.

Only first-class specimens accepted at any price. All others returned at senders expense.

We will receive hundreds of packages in answer to this exchange, and if you do not write your name plainly on the outside of the packages you send, your exchange will be delayed and packages possibly lost.

This offer will hold good until June 30th only. At that date we may see fit to extend it, but shall doubtless withdraw it entirely.

Send on your specimens at once in large or small quantities. It makes no difference to us whether you send \$1.00 or \$100.00 worth; but if less than \$1.00 worth, 10c extra must be enclosed for return postage and packing.

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This Directory is the Best and Cheapest

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ONLY THIRTY CENTS.

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Frank H. Lattin,
WHOLESALE AGENT,
Albion, New York

In order to close out our stock of Handbooks and Directories, we will, for the next **SIXTY DAYS**, send a copy of either prepaid for only 15 CENTS, or a copy of both for only 25 CENTS.

New Directory!
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Address all communications to

MENEFEE & CORLESS,
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For the convenience of our patrons we have arranged the following sets of samples any of which will be sent prepaid upon receipt of price:

Trays, 4 sizes,	05
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Gummed Labels, useful for any business, 10 styles,	03
Tags, 4 styles,	02
Datas, Labels and Blanks, sheet of 20 Samples,	02
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FRANK H. LATTIN,
Albion, N. Y.

THE OOLOGIST.

Vol. VI,

ALBION, N. Y., JUNE, 1889.

No. 6

Birds of Mathews County, Va.

I think the suggestion made by Mr. Clute in the January issue of the OOLOGIST, a very good one—for everyone to give some account of the bird life in his locality. Doubtless this would be very interesting as well as instructive to the readers of the OOLOGIST, for a great deal of valuable information concerning the haunts and habits of our birds, could thus be gained.

As some have already given interesting accounts regarding the above, I send in the following report of some of the most common species which occur in this section, hoping that it may of interest to some.

This county, as may be observed, lies on the western side of the Chesapeake Bay; the northern, eastern and southern shores being washed by its waters. The entire coast is indented with rivers, creeks and coves, so that there is no point within the county, more than two miles from salt-water; hence we are frequented by many aquatic birds, such as Ducks, Geese, Gulls, Terns, Loons, Herons, Rails, etc.

Among the Ducks the most common are the Canvas-back, Mallard, Scoter, Red-headed, Old-wife, Pintail, Golden-eye, Teal, Wood, etc. With exception of the Wood Duck, all depart, at the approach of Summer, for more northern regions.

The Loons, which are frequently caught in the seines, by the fishermen, are very common during Winter and early Spring, but the Summer haunts, of this bird, is farther north.

We have quite a number of species of the Gull and Tern, but I can not give each by its proper name, as I have not had the opportunity to procure specimens for identification; but however the Laughing Gull and Common Tern are the most numerous of their family. Hundreds of eggs of the latter species can be picked up along the beach about the first of June.

The chief representatives, of the Heron

family, are the Great Blue Heron and the Green Heron: the first is known here by the name "Scoggin." The White Heron is sometimes met with, but he can not be considered as a summer resident.

The Clapper Rail, Black Rail and Yellow Rail are found here in the Summer season. The Sora or Carolina Rail is not common here, but in the reeds and marshes along the rivers, farther inland, where it is very numerous it is hunted extensively by the sportsmen, affording a most agreeable amusement as well as a delicious repast.

Of the shore birds, the Wilson's Snipe, Least Sandpiper, Spotted Sandpiper, Woodcock and Killdeer are among the most numerous. The Woodcock is common throughout the year. In the latter part of March, when nidification begins, it resorts to the swamps, sedgefields and thickets, where it rears its young. Its nest is usually placed in a tussock of grass or patch of briars. I have seen the young large enough to fly by the middle of May.

The Turkey Buzzard, which is so much respected here for his usefulness, though not beloved, in consequence of his habits, is abundant at all times. They begin nesting here about the first of May. A slight depression in the ground with, perhaps, a few scattering leaves, inside of an old hollow stump, make up the nest. Two eggs are said to be a set, but we frequently find them here containing four.

The Bald Eagle, in consequence of his great partiality for fish, which he often procures by robbing the Fish Hawk, is a common resident here. The nesting season of this bird begins about the 10th of February, though Mr. M —, a friend of mine, took a nest on Feb. 15, '89, containing eaglets not less than a week old. Allowing four weeks for incubation, the eggs were laid about January 12th. This, I consider, early nesting for this species: certainly in

this locality. Two eggs are usually laid, but I have known them to lay three.

Departing for more southern regions in the latter part of September, the Fish Hawk reappears in great abundance at the early approach of Spring, and returning to the same nests occupied in the former season. They begin laying about the last week of April; the nests are generally placed on pine trees in the vicinity of water, ranging from ten to seventy-five feet from the ground, and sometimes on the ground. There may be seen, sometimes, along our coast, dozens of nests within a few square acres.

Among the Owls, the Great Horned and Screech Owls are most common. The Long-eared and Saw-whet are rare.

Crows are abundant at all seasons. In Winter evenings about sunset, they can be seen flying in large flocks to the southern portion of the county to roost, and returning early in the morning.

Of the Woodpeckers, the Flicker, the Hairy and Downy Woodpeckers are very common. The Pileated and Red-bellied are rare. The Red-headed Woodpecker, which was once so common here, has become almost extinct. His predatory habits in the orchards and cornfields; his excessive fondness for fruit, especially the cherry, and his peculiar habit of approaching dwelling and farm houses, and rapping on the shingles, are some of his marked peculiarities. His absence here may, perhaps, be attributed to the scarcity of timbered lands the most of which have been cut, as such places are his favorite retreats, especially in time of nidification.

The following, named in order of their abundance, are quite numerous: Night Hawk, Whip-poor-will and Chuck-wills-widow, also the Chimney Swift and Ruby-throated Hummingbird are very numerous. These occur only as Summer residents.

Kingfishers are abundant along the river shores throughout the summer season.

Yellow-billed Cuckoos are abundant as Summer residents. The Black-billed is very rare.

We have many representatives of the Tyrannidæ family, the chief of which are

the Kingbird, Crested Flycatcher, Acadian Flycatcher, Traill's Flycatcher, Wood Pewee and Phoebe. These we have only as summer residents.

The Orchard Oriole, Meadow Lark, Cowbird, Red-winged Blackbird, Purple Grackle and Boat-tailed Grackle are very abundant. Baltimore Orioles and Bobolinks very rarely occur.

We have among the Turdidæ family, American Robin, Bluebird as common residents. The Wilson's Thrush and Hermit Thrush appear only as migrants.

We have as common residents the following: Cardinal, Water Thrush, Mockingbird, Carolina Wren, Black-capped Chickadee, American Quail, Mourning Dove, Song Sparrow, Chipping Sparrow, Field Sparrow and Goldfinch.

As Winter residents we have the following: White-throated Sparrow, Tree Sparrow, Swamp Sparrow, Fox Sparrow, Snowbird, Golden-Crowned Kinglet and Yellow-rumped Warbler.

The following are Summer residents: Seaside Sparrow, Catbird, Blue Grosbeak, Indigo Bunting, Scarlet Tanager, Summer Redbird, Purple Martin, Barn Swallow, White-bellied Swallow, Bank Swallow, Red-eyed Vireo, Warbling Vireo, Blue-headed Vireo, White-eyed Vireo, Yellow Warbler, Yellow-breasted Chat, Golden-crowned Thrush, Brown Thrasher, House Wren and Blue-grey Gnatcatcher.

The following occur as migrants; Purple Finch, Pine Grosbeak, Savanna Sparrow, White-crowned Sparrow, Rose-breasted Grosbeak and Cedar Waxwing.

M. C. WHITE.

Changes in the Nesting of Birds.

Among the many changes which have taken place in the habits of birds since the settlement of America, those which concern their nesting habits are of much interest.

The Bluebird early left his hole in some forest-tree for a hollow limb in the orchard or apartments in the bird-house, and the House Wren, who lived in the same situa-

tions as the Bluebird, took up his abode in any odd cranny about the house or out-building.

The Pewee, which is so common about our barns and houses, long ago placed its nest on any convenient shelf among the rocks; some individuals do so this day, but by far the greater number have betaken themselves to the dwelling of man or to a beam under some bridge.

But of all birds, the Swallows have taken most kindly to the habitations of man. Before there were any barns to build in, the Barn Swallow nested in caves or under overhanging cliffs, but as soon as the large roomy barns of our ancestors began to appear, the cliffs were left for the more comfortable retreats among the rafters. This exodus from the caves must have taken place very early in the history of our country, for the bird is rarely called by any other name than Barn Swallow. A danger now threatens this bird in our modern tight barns: no opening is left as of yore for access to their nesting places, and from this cause, it is said, the Barn Swallow is gradually diminishing in numbers. Will they remember their former haunts among the cliffs and go back to them again?

A neighbor of the Barn Swallow, on the cliffs, who has followed him to our barns, is the Cliff Swallow; he builds his jug-shaped nest beneath the eaves and one wonders what he has gained by the exchange, unless it is a greater abundance of insect food. Yet all Cliff Swallows have not forsaken the ways of their ancestors, for they are occasionally found nesting on cliffs, and in the West they nest very commonly in such situations. It was formerly believed that since the settlement of this country, the Cliff Swallow has gradually spread over the continent from the West, where it is most abundant. It is now generally conceded that it always nested in the East, but was seldom seen during the early days, owing to the nature of its nesting places.

The White-bellied or Tree Swallow has not entirely forgotten his hole in a tree or

stump, but each year his nest is becoming more common in bird-houses and holes about buildings. In time he will probably nest in no other situations. This bird, however, does not seem very particular as to where it places its nest. Langille saw them under flat stones and in holes in the ground in Nova Scotia.

The Bank Swallow could make little change for the better and still nest in river banks; lately they have taken to nesting in railway cuttings when the soil is soft enough for them to work in.

A hollow tree was the Chimney Swift's early nesting place, but the great wide chimneys built by our forefathers did not long escape its notice and the tree was soon forsaken for the chimney's capacious depths. No doubt the superior opportunities afforded for getting its living was the main cause for the change, but the bird has also gained greater safety from its enemies.

The Purple Martin, too, was formerly in the habit of nesting in trees, and the early settlers found them nesting in gourds hung up by the Indians for that purpose. At the present time, the Martins are nearly always found breeding in bird houses. They seem particularly attached to certain localities, and in some places are quite common, while in others they are seldom seen.

The reader will call to mind many other instances of birds that have made some change in their nesting places. Many changes are slowly taking place now. Maurice Thompson says of the Red-headed Woodpecker: "I prophesy that, within less than a hundred years to come, he will be making his nest on the ground, in hedges or the crotches of orchard trees." No one need expect such great changes in many of our birds, but a hundred years will very materially change the nesting places of some.

WILLARD N. CLUTE,

Binghamton, N. Y.

A Short Collecting Tour in Florida.

On the 11th day of April, 1888, I left home for a short tour in the country. I went more especially for the Sparrow Hawks, as they were now in their prime nesting; but was ready for anything desirable that I came across. I had proceeded about a mile, when, seeing a pair of Sparrow Hawks fooling around, I began to look for their nest. Presently I saw a hole about twenty feet up, that looked "wore," and strapping on my climbers "shinned up." Imagine my surprise on finding a Florida Screech Owl sitting on two fresh eggs. I suppose the Sparrow Hawks had nested here last year; but this year the "Screecher" had got ahead of them and they were at a loss to know what to do for a nest. I had proceeded but a short distance when I found a set of five badly incubated Logger-head Shrike's eggs. The nest was composed of sticks and straws, lined with bits of feathers, cotton etc. I soon had these packed safely away in my collecting box.

Seeing a colored boy at work in an adjoining field, I asked him if he knew where there were any birds' nests. He said yes; he knew where there was a Tilla Hawk's (meaning Sparrow Hawk) nest, to which pointed, saying, "Hit was way up dar." After looking at the snag, I decided I would not attempt to climb it, as the hole was fully sixty feet up and the snag was very rotten; but when I pounded on the snag and the "old lady" flew out, I could not resist trying it, and after a shaky climb I secured a nice set of four badly incubated eggs.

The eggs were laid on rotten wood on bare floor of cavity; and near this nest I found another set of four Sparrow Hawk eggs just exactly like the first set in color, markings and shape. I think this set must have been laid by the offspring of the other pair. I found nothing after this for nearly two hours and then found a pretty set of three Sparrow Hawk eggs, perfect-

fresh. My next find was a set of five Brown-headed Nuthatch eggs. I saw the pair pecking away on a dead tree, and thinking they might have a nest near by, concluded to watch them; and soon the female flew to a dead stump and began her twittering when she was joined by her mate; whereupon she disappeared in a small hole I had failed to notice before. At this I thought it time to investigate the matter myself. To make a long story short, after ten or fifteen minutes tedious and delicate work, I secured the set. They were beauties; having a white ground color thickly sprinkled with reddish-brown dots, chiefly at the larger end. These birds excavate their holes like the *Picidae*. This cavity they line with fine strips of pine bark and vegetable fibre. Soon after this I found a set of six Logger-head Shrike's eggs, perfectly fresh. The nest was situated in an orange tree fifteen feet up, composed of moss, lined with cotton. My next and last find was another set of Sparrow Hawk eggs, five in number, perfectly fresh. I noticed a pair of Sparrow Hawks sitting on a dead snag, and thinking they must have a nest near by, began looking around and soon discovered a hole that looked suggestive, and after a short climb secured a fine set of five, by far the prettiest set I had taken during the day. I had now arrived near home and soon after was enjoying a good supper and congratulating myself on my success for the day.

A. L. QUAINANCE, Archer, Fla.

Nesting of the Pigmy Owl

The California Pigmy Owl is sometimes seen sitting on the limbs of trees in dark thickets. It is a curious looking bird, a little larger than a Cal. Woodpecker. I have never taken but one set of the eggs, and I found them accidentally. I was working out in the country near Santa Rosa. It was about the middle of May, and one day after dinner I took a short walk up the side of a rocky hill, near the building I was at work upon. I had a lath in my hand

with which I was striking the trees as I passed along. About half way up the hill I saw a Red-shafted Flicker looking out of a hole in a snag of an oak tree. I thought I would look into its nest as I came back; and went on about thirty yards, when, as I started to pass a tree, which had been broken off about six feet from the ground. As I went to pass I noticed a hole about a foot from the top of the stump, which looked as if it had been made by a Woodpecker. I struck the stump below the hole and a gray colored bird popped out and flew rapidly away. I tried to look into the hole, but could see nothing. The stump, though rotten, was too hard to break with my hands so I started back to the house and got a hand-axe and ran all the way back again. A few licks with the axe and I had a hole large enough to put my hand in. I felt in carefully, and was elated to feel eggs. I took them out one at a time until there were three perfectly white eggs, spherical in shape, and measure 1 1-16 by about 1 in. As I have no caliper rule, I took the measure with a common rule, but the measurements are, I think, correct. The eggs were perfectly fresh, and I have no means of knowing whether three eggs are a set or not. I should like to know how many eggs the Cal. Pigmy Owl lays. If any reader of this article does know, let's hear from him through this paper.

Yours Respectfully,

A. Calderwood, Jr.

Sonoma Co., Cal.

Woodcock in Southern Illinois.

Though the game birds are the least interesting to the ornithologist, except from a gastronomic point of view, it may, notwithstanding, be of interest to notice the occurrence of what is undoubtedly a somewhat common bird in an unusual locality. That is a Woodcock *P. minor* that had been killed by flying against a telephone wire over a low stream and was found soon after. Since these are considered game birds they must necessarily be somewhat

abundant in some localities, though this is the first occurrence in this region, Southern Illinois, that has come to my notice.

The genus *Philohela* is the smallest one of the perfectly defined family *Scolopacidae* the most interesting of the *limicola* or shore-birds.

The *P. minor* that fell to my lot, dispatched as it were on the wires, after careful manipulation furnished a first-class skin. It is a female in fine plumage. I would be pleased to learn of others' experience with this family through the OOLOGIST, as I have seen little mention heretofore.

H. F. ANDREWS.

Shrikes.

Your correspondent C. B. C. I see is out with the query on the difference between the White-rumped Shrike and the Loggerhead. Perhaps I can enlighten him somewhat.

The Loggerhead, *ludovicianus*, is the type the White-rumped *l. excubitorides* simply being a variety of that species. The difference between the two is very close, and consists chiefly as follows:

The White-rumped is much lighter in color, particularly noticeable in the upper parts where it bleaches to a lighter shade on the rump, a thing not found on the Loggerhead; the white spot on the primaries is longer and narrower on the White-rumped. The black line on the side of the head is generally found to be shorter and broader on the Loggerhead. In size the White-rumped is found to be slightly larger. The Loggerhead is the form from the South-eastern States, while the White-rumped inhabits the Middle and Western States. Still another form now hails from the Pacific Slope, known as the Ridgway Shrike.

GEO. G. CANTWELL,

Minneapolis, Minn.

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—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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The American Woodcock.

The nesting habits of this beautiful game bird are known to very few collectors.

Years ago, it is said, these birds were plenty; but the continuous raids of the pot-hunter and sportsman thinned them out.

Its favorite haunts are in swampy woodlands, near some sluggish stream that creeps through the banks of soft loamy soil, tufted with clumps of ferns and herbage, that mimic well with their upper feathers.

They feed especially in the morning and evening, on insects and worms which they get by prodding their long bill in the soft ground.

The nest of the Woodcock is found in low moist woods, but it is not an uncommon thing to find them in high dry woods.

The nest is always placed on the ground; it is simply a slight depression, about the size of a Robin's nest on the outside, and an inch deep, lined with leaves and grass.

The eggs are three and four in number, the ground color buff, covered with blotches spots and dots of different shades of brown. They measure about 1.40 x 1.20 inches.

The Woodcock migrates farther to the south in the Autumn and returns again in the Spring by nightly journeys. They start generally with the full moon which ushers out October or lights up the early November night. It arrives again about the first of April and begins to nest soon after.

C. F., Princetown, N. Y.

Wood Pewee.

In the OOLOGIST for '88 I have not seen any articles on the Wood Pewee. To my mind this species is worthy of note.

During the last season I have found the Wood Pewee very abundant in this locality, frequenting groves and woodlands. Its food, the nature of which renders it very helpful as an insect destroyer, consists of small beetles and winged insects. It obtains nearly all of its food while upon the wing. In the woods, some small opening between the tree tops is selected for its hunting grounds. The whistle of the Wood Pewee has a somewhat dreamy cadence that is in harmony with a quiet afternoon in June or July.

The site usually selected for the nest is a dead limb of an oak, the nest harmonizing in color with the bark of the limb. I have rarely found this bird nesting in other trees, except on one or two occasions, when I have found nests in butternut and maple trees. The height at which the nest is placed varies from fifteen to thirty feet. The typical nest is saucer-shaped, measuring, diameter outside, 3 inches, inside, 2 inches; depth outside, 1½ inches, inside, 1 inch, and composed of small straws and weed stems, and lined in some instances with hair, covered on outside with gray lichens.

The eggs, two or three in number, rarely 4, 3 seems to be the number usually deposited, are of a rich creamy white, thickly spotted with deep reddish-brown and lilac often forming a confluent ring around larger end.

Average measurement, .76 x .54 and .71 x .53.

F. W. C., Wauwatosa, Wis.

A Murderous Red-headed Woodpecker.

There is no pursuit that furnishes me with so much delight as natural history; but birds' habits have been so well studied and recorded that it seems hardly possible to note anything more that will be new for our latitude. However that may be, I will relate something I observed which strikes me as an unusual trait in the habits of the Red-headed Woodpecker:

One day in July, 1886, I visited a farmer and gardener named Abel Steele, who resides about three miles west of Hyde Park, and while walking with him to the back of his farm we observed some young Robins along the lane fence. They were able to fly two or three rods at a time before alighting. Returning an hour later by the same route, Mr. Steele called my attention to a Red-headed Woodpecker carrying something large in its beak; I looked just in time to see the Woodpecker drop its drop its burden and alight upon a clod close by it, and look at it with much eagerness. I went to see what it might be that the Woodpecker had been flying away with, and was greatly surprised to find it to be one of the young Robins we had noticed when passing that way before. It was just newly killed; its head being smashed to a jelly and brain oozing out at a number of places. I have no doubt but that the Woodpecker had killed the Robin, for I have frequently in Winter seen Red-heads chase Chickadees, Nuthatches and smaller species of Woodpeckers.

I would like to hear from others on the same subject.

JOHN A. MORDEN, Ontario, Can.

Black-billed Cuckoo Nesting in Dakota.

As the writer of the article on Cuckoos, in the Jan. number of the Oölogist, desires to hear from others on the subject, I thought a few notes from Dakota might prove interesting to my Oölogical friends.

On the 29th of June, 1886, brother and I were on a fishing excursion up the "James," although a narrow river it is the longest one wholly in the territory and abounds in many species of fish. Numerous small willows grow along its banks. Occasionally a small grove of plum and choke cherry trees have sprung up along its bluffs. Nine years ago there were some good sized ash, elm, box-elder and cottonwood trees growing along its banks in Beadle Co.; but now we can only speak of stumps and shrubs.

Returning to my subject; being somewhat tired of rowing up this winding river, we sought shelter from the sun in a thick growth of willows, growing on the east bank about 7 miles north and east of Huron. After a short time I possessed a curiosity to explore this tangle of willows and rose bushes, and consider myself well paid for my trouble, for I had only gone a short distance when I caught sight of a female Black-billed Cuckoo sitting on its nest. In a second she had slipped of the nest and disappeared among the bushes and my eyes rested upon a beautiful set of four greenish-blue eggs in as beautiful a nest, composed of willow twigs, leaves and catkins. It was well concealed in a wild rose bush, scarcely 3 feet from the ground. The willows formed a canopy a few feet overhead, the silent river was not a rod away. I do not believe I have ever seen a more pleasant place for a cuckoo to establish a summer home. The eggs, which measure 1.06 x .84, 1.13 x .84, 1.14 x .85 and 1.16 x .85 now rest in a cotton lined tray in my cabinet and call to mind many pleasant thoughts of that day we went fishing.

E. S. C.

Datas.

We would like to call the attention of oologists to the importance of writing good datas. We often receive sets of eggs with incomplete datas.

For example, I have before me a data for a set of Least Flycatcher: the number, name, identity and set-mark are all right; then the collector gives only his initials, and for the locality gives the town without giving the State.

Now, if I didn't know the collector by reputation, the name of the State, and the locality in which this bird breeds, I might suppose the eggs were collected in South Africa by a Hottentot. For the nest, he says it was placed in an apple tree. Surprising information! Remember! the nest was placed in apple tree, not a plum or a pear tree. It may have been four or forty feet from the ground. A little thing of 20 or 30 feet does not make any difference. He gives no description of the nest. It may have been composed of fence palings and lined with grape vines, for all the information he gives us on the subject.

Now, with a few minutes time he could have given a complete and satisfactory data which would have increased the value of the set to my notion. We often receive incomplete datas for eggs of sea birds. Usually the datas are all right till they come to the description of the nest; this space they leave blank.

Now, we all know that most of these birds do not build a nest, but lay their eggs on the beach, in burrows or in clefts in the rocks. The description of the nesting place of these birds would of course be brief. Why couldn't the collector give us this information and not have us wondering whether the eggs were placed on the beach, on a cliff 500 feet above the sea, or a thousand and one other places where they may have been deposited. Always write the name of the collector on the data.

There are many eggs difficult to identify. If we see the name of a reliable collector on the data for such eggs, we at once say,

these eggs are all right, or this man would not give his word for it. It doesn't take a quire of paper to write a good data. The medium size blanks are large enough. Be clear, complete, and above all, give us facts, and a smile of satisfaction will overspread the countenance of the oologist when he receives your datas.

J.

The Nest of the Marsh Hawk.

Perhaps the Marsh Hawk is too common a bird in most localities to merit attention in the OOLOGIST, but in this vicinity I find it rather rare. I have as yet been able to find but one nest of this species, which happened as follows:

I was one day (in the Spring of '88) traversing a low marshy forest in quest of oological specimens, when a female Marsh Hawk started up a little way in front of me, emitting a loud cry of alarm. Suspecting that she started from her nest, I at once started in search. I had proceeded but a few steps when the male bird appeared upon the scene of action. He had apparently got directly over me before he discovered the intruder and then in his surprise dropped a mouse from his talons which almost hit me as it fell, and then as I proceeded both birds, the male in advance plunged through the air directly at me, coming within a few feet of my head, and each time coming nearer to me until I was obliged to retreat and get a club to keep them back until I reached the nest.

The nest, if nest it could be called, was situated on a hassock about six inches high and partly surrounded by water. The hassock was slightly hollowed on the top and a few dry spears of grass and weeds laid across to keep the eggs from the damp ground.

The eggs, five in number, were very fine specimens; very uniform in size and shape, and a very smooth surface. In color they were white with a very faint blue tinge, and three of them were well marked with brown blotches. Incubation was well advanced.

M. D. C., Antrim, N. H.

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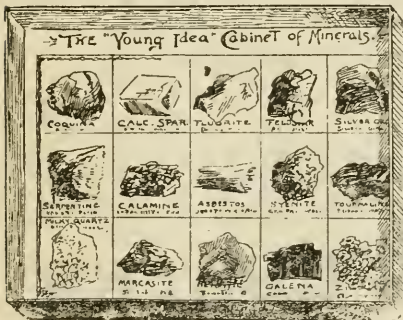
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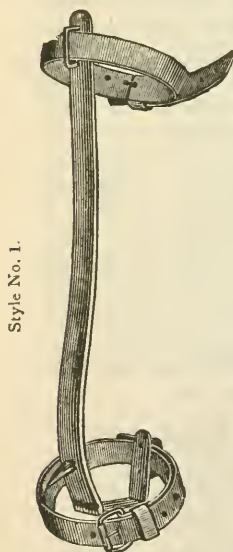
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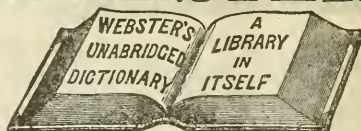


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for 1889 will remain the same as quoted in the *Naturalist's Bulletin* of Sept., '88, and as given and corrected on this page. We have hundreds of specimens not noted on these lists, but from present outlook we think it will be impossible to issue new catalogues before 1890.

CORRECTIONS.

No. 4, Short-handle Egg Drill 21-100 is 15c instead of 25c.

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Birds' Eggs.

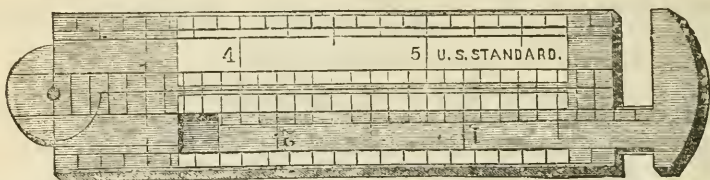
Eggs not listed in 1888, Sept. *Bulletin*.

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Clay-colored Sparrow.....	.50
Rusty Song Sparrow.....	.35
Canon Towhee.....	.25
Florida Grackle.....	.08
Northwest Crow.....	.40
American Raven.....	1.95
Green Jay.....	1.00
Florida Jay.....	1.50
Mexican Crested Flycatcher.....	.75
Say's Pewee.....	.18
Black Pewee.....	.18
Berlandier's Wren.....	.50
Baird's Flycatcher.....	.25
Costa's Hummingbird.....	.75
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Florida Burrowing Owl.....	4.00
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Ruff.....	.25
Black-tailed Godwit.....	.40
Dunlin.....	.35
European Snipe.....	.25
European Woodcock.....	1.75
Black-necked Stilt.....	.60
Wilson's Phalarope.....	1.00
Red Phalarope.....	1.00
Northern Phalarope.....	.70
Sandhill Crane.....	1.00
Whooping Crane.....	1.25
White Ibis.....	.25
Glossy Ibis.....	.35
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Cabbot's Tern.....	.40
Sooty Tern.....	.35
Noddy Tern.....	.60
Bridled Tern.....	3.50
White-winged Black Tern.....	.50
Audobon's Shearwater.....	2.60
Manx Shearwater.....	.60
Pacific Loon.....	2.00
Horned Grebe.....	.50
American Eared Grebe.....	.25
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Corrections and Change of Prices.

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Stormy Petrel.....	.50
Roseate Tern.....	.65

Measure your Specimens.



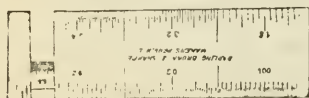
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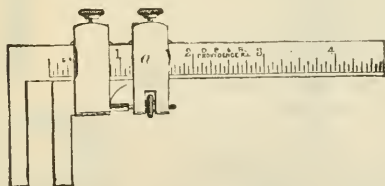
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
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Vol. VI,

ALBION, N. Y., JULY, 1889.

No. 7

Exchanges and Wants.

Brief special announcements. "Wants," "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

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To the collectors sending us the largest clubs of names from their own states only, to be inserted in our New Directory, we will give the following prizes of first-class eggs:

1st Prize, set of four California Screech Owl.
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All competitors must send names of two leading business men of their town as a guarantee of reliability. Names must be received on or before July 25th. **MENEFEE & CORLESS**, San Jose, Cal.

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Davie's New Check List.

This invaluable work will soon be ready to mail our patrons, how soon we can not positively say, but can *positively* say that the work is now *all* in type and we think is printed, ready for the binders, and we can see no reason why it should not be ready to mail before July 15th, but we do not control its being published any more than does the reader. The work will contain nearly 500 pages, and will *guarantee* that there is not an oologist in America that would take many times its cost, could he not obtain another.

We trust our patrons will bear with us in this extraordinary delay. We know that it must be very annoying to them, but it is also very annoying to us, for it is not only one copy that we are waiting for, but *over five hundred*.

We trust that by the time the August Oologist reaches its friends that we will be receiving many kind words for the "New Check List", for we know that the work will so surprise and please our patrons that they will not only write us kind words in its favor, but that they will also take back the unkind ones, written in regard to its delay.

Faithfully,

FRANK H. LATTIN.

ENCOURAGING SCIENCE.

The Vermont Microscopical Association has just announced that a prize of \$250, given by the Wells & Richardson Co., the well-known chemists, will be paid to the first discoverer of a new disease germ. The wonderful discovery by Pro. Koch of the cholera germ, as the cause of cholera, stimulated great research throughout the world and it is believed this liberal prize, offered by a house of such standing, will greatly assist in the detection of micro-organisms that are the direct cause of disease and death. All who are interested in the subject and the conditions of this prize, should write to C. Smith Boynton, M. D., Sec'y of the Association, Burlington, Vt.

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By purchasing large quantities of the Guides and Scafels we have been enabled to obtain special prices and we have decided to give our patrons the benefit of our bargain and let them have the lot for *less money than any dealer in America* can purchase the same goods for at *wholesale*. Our supply is limited and at this offer and price we can spare only 72 (seventy two) sets. Should your order be received after these 72 are sold we will return your money at once.

In order that dealers will not take advantage of this offer and take the entire lot at once, we will not sell any one person over three sets and we also reserve the right not to send over a dozen sets to a single Post Office. Should the articles we offer in this lot be wanted separately they will cost as follows, viz:—

Maynard's Naturalist's Guide	-	-	-	\$1.25
Ebony-handled Scafel	-	-	-	.60
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The Oologist's Handbook	-	-	-	.15

Or until June 15th we will mail you the entire lot by mail *postpaid* for ONLY \$1.50. Read the description of Maynard's Naturalist's Guide below. Address plainly,

Frank H. Lattin, Albion, Orleans Co., N. Y.

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The most popular work on collecting objects of natural history ever written. It has so long been the standard on the subjects of which it treats that but little requires to be said of it, but for the benefit of those who have never had an opportunity of examining the book, we will give an idea of what it treats by giving a digest of its contents.

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I want at once the following first-class eggs, either single or in sets, in exchange at full *Bulletin* prices, or if in sets I will allow 10 per ct. above these prices, in exchange for the articles mentioned below. Eggs taken in large or small quantities. No exchange amounting to less than \$1.00 can be "bothered with" unless 10c additional is enclosed for return postage and packing. If you have any of the rarer species to offer, send lists.

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If you desire to obtain anything on the above list in exchange, send on your eggs at once; if you have no eggs, but have other desirable specimens in quantity, write what you have with price; or will exchange for collections of fine Postage Stamps, or books on Natural History, or choice Indian Relics.

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We will receive hundreds of packages in answer to this exchange, and if you do not write your name plainly on the outside of the packages you send, your exchange will be delayed and packages possibly lost.

This offer will hold good until July 30th only. At that date we may see fit to extend it, but shall doubtless withdraw it entirely.

Send on your specimens at once in large or small quantities. It makes no difference to us whether you send \$1.00 or \$100.00 worth; but if less than \$1.00 worth, 10c extra must be enclosed for return postage and packing.

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Address FRANK H. LATTIN, ALBION, N. Y.

THE OOLOGIST.

Vol. VI,

ALBION, N. Y., JULY, 1889.

No. 7

Notes From Michigan.

I spent more time in the field during 1888, than in any other season and thinking that a few notes will be interesting to other collectors I take the following extracts from my note book:

Feb. 3, Saw my first shore lark. I have found fully fledged young of this species as early as April 15, but never took any eggs, although my brother found two sets of fresh eggs in June.

Feb. 11, Snow one foot on the level, but drifted in some places along the fence and ditches to the depth of four feet. Shot four shore larks and wounded another. This flock with the exception of a nut hatch and a Great northern shrike caught in the act of impaling an English sparrow on a thorn and were the only birds seen.

Feb. 12, Noticed three Blue birds. This is very early for I never saw one here before earlier than the 25th.

Feb. 18, Shot and wing-tipped a Blue Jay and by using her as a decoy secured another, also flushed a Meadow Lark.

Mar. 1, Some of the hawks are taking advantage of the extraordinary mildness of this season to build their nests. I found a Red Shouldered Hawk's nest, to-day, nearly complete, will expect a set of eggs in about three weeks. Shot a male Sparrow Hawk, a bird never very common here.

Mar. 10, Took a trip to Windsor. The warm weather has broken up the ice and it comes floating down the river in large cakes. The woods are full of Blue Jays and the pretty little Bluebird can be seen flitting from post to post in search of insects, which I am afraid he finds rather scarce. Song Sparrows are also quite plentiful.

Ma. 12, Gt. Horned Owl, Set of two eggs incub. far advanced. Nest in an old Hawk's nest, in a grove near the city. Not near so common as it was a few years back.

Mar. 24, Two incub. eggs of Red shouldered Hawk. Nest in a clump of trees,

the lowest limb in the group being 30ft. from the ground. I leave the eggs for young, hope at the same time to secure the parent birds.

April 8, Took two Red-shouldered Hawk's eggs from a nest in the forks of a short scrub oak in low, damp woods. The birds were very much distressed and hovering over-head gave vent to their feelings by many cries. The locality generally chosen by this bird for a nest is the main fork of a tree in deep woods. A piece of ground covered by beech and surrounded by timber of a swampy nature is favorite site. They construct a large, bulky nest, though comparatively shallow. It is composed of sticks and twigs carelessly placed together and lined with corn-husks, leaves, feathers, etc. As soon as incubation begins the loose, downy feathers of the breast come out and may be seen clinging all over the nest and to the surrounding limbs. At this period the female has a curious habit of ornamenting the nest with green leaves. The male takes his turn in incubating the eggs which usually does not commence until the second is deposited. The eggs are two to five and some times six in number, but the majority of sets however consist of three. Each set is singularly variable in regard to markings the first being much more highly colored than the last. The ground color being a dirty white with a bluish tinge, spotted and blotched with brown and amber of different shades, size about 2.25 by 1.75. A handsome specimen in my cabinet is light buff, blotched with very dark brown, gathered in a broad ring around the larger end. When I find a nest and know the set is not complete I remove them and substitute hens eggs. The Hawk cannot distinguish the difference and sits on them as faithfully as on her own. I found fastened among the sticks of a nest of this species a Wood-mouse's nest containing young.

April 10, American Crow, set of six fresh eggs. Nest composed of sticks and twigs,

lined with strips of bark, moss, and horse-hair, placed in main fork of an oak tree fifty feet up. A very common bird. I have noticed that when the crow retires into the woods to breed it is not uncommon to find nests in the immediate neighborhood of each other much nearer the ground than in groves and open woods. While the trees are yet leafless the nest is easily seen, but after the bursting of the buds it can be found only after a very careful search.

April 17. American Long-eared Owl, set of five slightly incubated eggs. Nest in beech twelve feet from ground and composed of sticks lined with leaves and feathers. This is the most common variety of owl that inhabits our woods, but as it is a very nocturnal bird is seldom seen.

April 20. The only find to-day was a set of four fresh eggs of the Song Sparrow placed in nest on side of ditch. Who has not seen our commonest native sparrow threading its way through a brush heap, traversing the twigs, stems and branches of trees and bushes with surprising ease, or perched on a fence-rail or tree-top pouring forth its full sweet song. It is a very lively bird and usually flies near the ground. Often has it flown along the fence before me dodging in and out between the rails each motion follows by a flirt of the tail and always keeping a certain distance ahead.

April 23. Visited the Hawk's nest found on the 24th of last month and left for young. The birds were absent on my arrival, there was no under-brush and as the branches were yet leafless I could not conceal myself effectually. The female was the first to put in an appearance, but before arriving within gunshot her sharp eyes detected my presence. turning quickly she ascended to a great height, where she was joined by her mate, and as the two continued to soar above my head without apparently any intention of approaching any nearer I gave up all hope of getting them, climbed the tree and secured the two downy young. One fell and was killed, the other I named Jack.

April 24. Bluebird nest in hollow of a willow tree and contained five fresh eggs, also four fresh American Robin's eggs, from nest in pine three feet above ground.

April 26. Jack has already become very tame. He has taken up his quarters in a box nailed on the side of the shed and filled with soft hay, here he sits all day for his legs are too weak to bear his weight. When he is hungry he becomes excessively noisy, and being unable to tear to pieces the food given him, I am obliged to feed him by hand. His food is entirely of an animal nature.

April 28. Cooper's Hawk, a strong forked branch near the top of a lofty elm was chosen for the nest. It was built of sticks, twigs, grass, weeds etc., lined with bark, moss, wool and other soft materials. There were four fresh eggs in it, of a greenish white, spotted with pale brown. This bold and reckless hawk is not so common as *Buteo lineatus*.

April 30. Pewee, nest under bridge and contained five eggs of this species and one of the Cowbird.

May 5. Jack with rare intelligence has learned in this very brief time to distinguish me from the other and shows an excessive affection for me. The rapid growth of his feathers is surprising.

May 10. Took two sets of one, one of four and one of five English Sparrow's eggs from ornamental maple trees in the city. This sparrow is not only a tyrant, driving all other songsters from the city, but a general nuisance also.

May 14. Chickadee, saw a Chickadee fly from a hole in a decayed stump and by cutting away the wood I obtained the nest and six eggs, it was composed of hair, wool, moss and feathers. Although regarded as a common bird in winter few are seen in summer yet I believe many stay and breed. From a dense thicket, interwoven with briars and thorny creepers I flushed a Ruffed Grouse and a short search revealed nine eggs, two other nests containing eggs was a Towhee's containing one egg which I left for a larger set and a Chipping Sparrow's on the top-

most branch of a small oak. The latter species ranks next to the Song Sparrow in abundance.

May 18. Spent to-day among the reeds along the river. The first find was two sets of four, five sets of three and one set of five Red-winged Blackbird's eggs. The nests were placed in a clump of rose and thorn bushes mixed with the reeds. At mid-day the heat in the reeds became almost stifling and I was glad when a grove of oaks loomed up ahead, this reached. I threw myself in the shade of a large tree to rest. Several male Blackbirds discovered me, alighting on the branches overhead, exhibiting many signs of uneasiness and anxiety. Occasionally one of them would perform a short flight and poising over the reedy shore, uttering warning cries to the inmates of his well concealed home below. I walked along the reeds through the marsh hay for nearly four more miles more and found only three incub. Kingbird's eggs in a nest on the horizontal fork of a half decayed willow. As the afternoon was well advanced I started for home. On a bridge some boys were amusing themselves by catching bank swallows with a small fish-hook, baited with a fly, as they went skimming over the smooth surface of the water beneath. They told me that they knew where there was a swallow's nest full of white eggs and agreed to show it for a nickle. So we started down the road. We had not gone far when one the boys showed me a hole in a fence post and said the nest was there. It was a Tree Swallow's and contained seven white eggs, nearly fresh.

May 23. Four fresh Tree Swallow's eggs from box nailed on top of a tall pole.

May 25. Least Bittern, set of three fresh eggs, one of which was finely dotted with light brown, nest a mere platform of cut blades of grass and weeds placed in dead reeds four feet over the water. A resident only in the large marshes along the river, not very common, also a set of eggs of the King Rail, nest composed of reeds, and placed in bush four inches over water.

May 28. Red-headed Woodpecker, three

fresh eggs, they were deposited on bare wood at bottom of cavity in a tree stump twenty feet up.

May 30. Took a White-rumped Shrike's nest situated among the lowest branches of an oak tree and contained three young. and three fresh eggs of the Lark Finch. Nest placed in a depression on the ground and well concealed.

June 4. Set of Bee Martin's eggs, nest in an apple orchard on the fork of a small horizontal branch and well concealed among the leaves. Went to the Towhee's nest found on the 14th of May and found in the place of of a handsome set of eggs four young. In the same woods I noticed a bird of the Flicker species leave a hole in the dead top of an ash tree, and climbing secured seven incub eggs. The last two finds were in a thick willow swamp, namely three Catbird's eggs and a nest of Yellow Warbler in a thorn bush holding four young and one added egg. Under the nest was a perfectly fresh Cowbird's egg.

June 5. Jack has no great love for dogs, or cats and will dash unhesitatingly at them. This reckless, headlong courage often gets him into trouble and if he does not learn to be more prudent will some day be the means of his death.

Red-winged Blackbird, set of three incub. eggs, nest placed among the reeds in the usual manner. While engaged in collecting their eggs one must be very careful in pushing his way through the reeds to get as firm a footing as possible, for many of the best appearing places are very deceiving and the collector need not be at all surprised if he suddenly goes down into a hole of slimy water and sticky mud, out of which he will have some difficulty in extricting himself. While collecting in the marshes, a long, light pole to sound the way with, is very useful. When the young are fledged and able to fly this bird leaves the reeds very early in the morning, going inland to feed, and returning to their former haunts at sun down. Long-billed Marsh Wren, set of five eggs from a nest in the marsh hay, which grows in abundance around the margin of the

reeds, also set of Oriole's eggs. This species has been far less common this season than usual.

June 6. Swamp Sparrow, five highly incub. eggs, nest in branch of reeds on edge of marsh. In waste marshy lands it is quite common.

June 12. Scarlet Tanager, while walking through a thick piece of woods to-day I found a nest of this bird situated on the fork of a small dogwood tree, it contained one egg and one young bird.

Wilson's Thrush, nest composed of grass, twigs, and leaves, lined with fine vegetable fibers, placed in a small bush about two feet up and contained three eggs. The nest is almost always placed in a hollow on the ground.

Spotted Sandpiper, four fresh eggs, nest a mere hollow in the ground lined with grass.

Blue Jay, nest fifty feet up in hickory, made of usual material. Two of the three eggs found in it were dark olive-brown and unspotted.

Chimney Swift, set of four eggs slightly incub., nest in chimney of uninhabited log cabin. This pair have built their nest in this chimney for three successive seasons, notwithstanding that I have taken the eggs each season and several times caught and examined the female.

June 15. Jack is shy of strangers and screams in a most ear-piercing manner when approached by them.

June 16. Catbird, nest placed in in some thick bushes. The Catbird and Brown Thrasher are called mocking birds here.

June 20, Three incub. eggs of the Thrasher, nest in cluster of black berry bushes. Not very common.

June 21. Cedar Waxwing, five eggs from nest in orchard, also set of Traill's Flycatcher's, three Yellow-billed Cuckoo's eggs, nest of former in a patch of second growth maple, that of the latter on a platform of sticks in an elder tree. Commoner than the Black-billed species.

July 1. Jack is very voracious and if permitted will gorge himself until it seems as though he would burst, and at such times

seems inspired with the very soul of laziness sitting on his perch for hours.

July 4. From the extremity of a hole in in a sand bank, early one-fourth of a mile from water, I took five Bank Swallows eggs.

July 6. Grass Finch, the nest was in a strip of pasture land, built of small twigs and grasses, lined with horse-hair. It contained four eggs.

July 7. Took a set of Black-billed Cuckoo's eggs from a nest in an apple tree. The Cuckoo seldom lays more than four eggs here.

July 24. Three eggs of Chipping Sparrow. Few of our native birds are better known than this sober plumaged little sparrow, also six fresh eggs of Goldfinch, nest in apple tree. I noticed large flocks last winter in the swamps and among the weeds in the fields.

July 26. One of the handsomest and neatest nests found here is that of the Goldfinch, and to-day I found one with four fresh eggs. It was in the same orchard as the one taken on the 24th.

August 8. Indigo Bunting, six fresh eggs, nest in upright fork of small bush, just where the main stem separated.

August 9. Wood Pewee, three slightly incub. eggs, nest on horizontal limb of an apple tree. This species is much more rare than Traill's Flycatcher and the nest is easily distinguished from that of the latter being a flat, compact structure, with thick sides, but thin flooring, in fact so thin that the eggs can often be seen from beneath. It is fastened to a horizontal branch and is covered outside with lichens. It selects a dead limb near the nest and attaches itself to the same spot for many successive days.

August 12. Ever since Jim's encounter with Jack he has shown a marked respect for the latter's sharp beak and strong talons.

August 16. While preparing Jack's dinner to-day, with his Hawkship perched upon my shoulder, I tossed a piece of meat into the air. He flew after it in an instant and caught it before it reached the ground.

Sept. 8. I sat in the yard reading, when I was greeted with a caw, and down came

Jim and perched upon my shoulder. I paid no attention to him and he at once commenced to investigate the contents of my pockets. There being only a few tooth-picks in them I let him withdraw these and conceal them in a knot-hole, after these were disposed of he tried to pull the buttons off my coat, but as they would not come and there was nothing else about me that he wanted, he flew down the walk and lit near Jack, who appeared to be asleep. After watching him closely for sometime to be sure that he was not shamming, for Jim judges everybody by himself, Jim jumped into his dish and commenced eating the few bits of meat left; suddenly out went one of Jack's strong pinions and Jim received a rap over the cranium which I have no doubt made him see stars, at any rate he flew straight across the yard and against the fence with a dull thud and fell senseless to the ground.

Sept. 14. Shot a Bittern. The Am. Bittern although still to be found breeding in favorable localities along the river, is much less common than it was when I became an oologist four years ago. In 1885 I could walk along the river edge and flush several of these birds within two miles, but this season although I was often in their haunts only two birds were seen.

Sept. 8. Shot a Sharp-shinned Hawk and White-bellied Nuthatch. This hawk is very scarce in summer but common in spring and fall, the Nuthatch resides with us throughout the year, being common at all seasons.

Oct. 15. While Snipe hunting to-day I saw a Pileated Woodpecker.

J. C. W.

Detroit, Mich.

The Robin Wintering in the South.

No doubt your Northern readers are all very familiar with the Robin's Summer habits, but his Winter habits suppose they know very little about.

The Robins arrive here about the middle of October, and fill the woods with their cheery notes. They seek the swamps and dense woods mostly, on account of the

berries and mast which they afford. The holly trees are they favorite resorts and in one of these trees a number of these birds can be seen almost any time of the day satisfying their ravenous appetites. But the Robin does not remain all the time so selfish; sometimes he comes near our habitations and partakes of the berries of the china tree. Here he is not as temperate as he ought to be; he eats too much of these berries and becomes intoxicated and falls to the ground.

At this season of the year this bird is in an excellent condition, and notwithstanding the old legend (to kill a Robin makes the cows give blood for milk), they are killed by great numbers. It is said that at a certain point on the Warrior river, in this State, these birds congregate by the millions to roost, and although dozens of hunters are there every night, no diminution in their number is noticeable. The noise they make can be heard two or three miles.

But man is not the Robin's only enemy; he is attacked very often when seeking the china tree, by the Mockingbird and made to beat a hasty retreat. I have a number of times witnessed the above proceeding. The Robin spies the berries and without suspecting the least danger, flies to the tree, but alas, poor bird, his expectation was of no avail.

Winter has nearly passed us now. The Robin sees the approach of Spring, and mounting one of the tallest trees, calls for his dusky mate, utters his shrill farewell note, and is off to his Summer home far away.

C. W., York Sta, Ala.

Feb. 4, '89.

How to Make a Mechanical Egg Drill.

First secure the works of an old clock and see that the spring is not broke, then take off the pendulum, ticker and hands, so that when the spring is wound up, the pinion which turns the hands goes around very fast,

Fasten the works to a small block to keep them from jumping about when in operation. Now get an old tin can and cut two strips from it about an inch long and not quite a quarter wide, and punch a hole in them near the end as large as the hole in the pinion which turns the hands.

Fasten the strips of tin one on each side of the pinion by pacing a pin through the holes and bending it down to keep it in place.

The whole thing may be covered with a neat box (take an old cigar box and cut it down to fit the works), allowing the pinion to project through a hole made for the purpose, cut another hole in it to put the key in to wind it up with. The cover may also be stained and varnished. The drills may be made from a piece of steel, or, better still, Lattin's short handle cheap drill No. 4, 21-100 in.

To operate the machine, fasten the drill on the pinion by placing it between the two pieces of tin and wrapping it then securely together with thread or fine wire—copper is the best. Then wind up the spring and press the egg to be drilled, lightly but firmly, against the revolving drill.

To make a "patent" stop—take a piece of wood and cut a hole in the cover, and stick the piece of wood in the cogs of the wheels; upon taking out the wood the drill will continue to revolve until run down.

FRED W. STACK,
Po'keepsie, N. Y.

Arkansas Notes.

Bird life in this section has been quite busy for some time. Many are just arriving, some have gone, and numbers have yet to come and gladden us with their song. Building is in order with quite a number of the earlier species, while a few have completed their oological collections for the year and such as Hawks, Owls, Vultures, and Pileated Woodpeckers are ready to hatch.

My collecting this year is headed by an "April Fool". I had been watching a Downy Woodpecker's nest for some time when, on the 1st of April, happening by the

tree, a large black oak, I thought I would get the eggs then and save another trip. So up the tree I went, without climbers, hatchet or saw. I cut a limb with my knife to pry with, and after half an hours hard work the hole was opened to the bottom, only to disclose an empty nest. I descended, resolved not to be so hasty next time. My first set, April 2d, was that of five Pewee eggs, one of which was dotted with specks of cinnamon. As it is invariably the case in this locality the Pewee builds under cliffs and in the mouth of caves. The nest was of the usual material, mud, moss, grass, leaves and fine strips of bark.

Blue bird, April 4th. Five bluish green eggs. Nest was placed in a black gum stump one foot from the ground and was made entirely of grass, leaves and stems. I look for the Blue bird to build on the ground next. This find calls to mind an inst. of a Grass Finch, which was placed on the top of a stack of timothy hay, in 1886. I have no excuse for the Blue bird, but the sparrow evidently built high to avoid the water on the ground in that wet season. The nest had four young birds in it, which furnished ample proof. Was not that reason? Ap. 6. Two sets of Pewee, five eggs each; and a partial set of three Downy Woodpeckers. Last year common Red-heads were thick, but not one is here this year.

First Whip-poor-will here, April 4th; Summer Red Bird, April 7th; Scarlet Tanager, April 8th; Black and White Creeper, March 15th; Brown Creeper, March 26th; Blue Gray Gnatcatcher, March 17th; Wild Geese, 20-21 of March. Robins do not sing here; they nest thirty miles north.

"ARKANSAS HOOSIER."

Clinton, Ark. April 28, '89.

A Goldfinch in Confinement, and Other Items.

There are many instances of keeping wild birds that have been taken from the nest, and I have a bird which I caught full grown. It is a male specimen of the Goldfinch, which had its wing broken. I picked it up

in a field where it had been eating thistle-down seeds and was so far removed from water that its bill was covered with rust. On placing it in a cage, it quite adapted itself to its new mode of living and the next morning it was eating as if it were in the fields. I placed the cage out of doors and in half an hour there were two other birds of the same kind on it. These new comers would allow you to approach within two or three feet before flying. On account of the changing of its coat twice a year, we named him "Mugwump".

Mugwump was ill fated, however, as most other birds are and had his eye picked out by Gyp, the canary. He lost the other last summer. On account of the extreme tameness of the wild birds I captured another by simply setting the cage in the house and opening the window. In half an hour or so another bird came into the room; I then closed the window and picked the bird up. I kept him for a week and let it go.

Poor old Mugwump is now deaf, dumb and blind and will soon die.

In regard to Albino eggs, talked of in your paper, I will add my experience. I took, about 3 years ago, a set of four white eggs, of the Blue Bird, from an old natural cavity in a tree. At a different date I took a set of spotted Phoebe eggs. Last spring I found a set of six Yellow-shafted Flicker's eggs and about two weeks after a set of five eggs of the Bluebird, out of the same hole.

D. B. M.
Lockport, N. Y.

The Burrowing owl.

Spsotylocunicularia hypogaea (Bonar) Ridgw.

The Burrowing Owl is not a bird attendant on civilization. Long before the trains of prairie schooners started westward to California he reared his brood upon the plains unmolested, where he loves to stay. They remain near the nest during the day, feeding principally at night, though they are seen oftener during the day time than any of the other *Strigidae*.

The food of the Burrowing Owl is composed principally of insects. He eats a large number of grasshoppers and locusts thus preventing their too rapid increase. As many as 59 locusts have been found in his stomach at one time. Besides this he often catches mice and occasionally a ground squirrel or a lizard.

The Burrowing Owls remain in pairs throughout the year. They are quite common in this locality. The nest is usually made in the deserted burrow of the ground-squirrel, though they are capable of excavating one for themselves. The hole is from three to six feet in length and one to two feet below the surface of the ground. They commence laying early in April. The eggs are pure white, six to eleven in number, elliptical in shape, and measure about 32 min. by 25 min.

In this locality the Burrowing Owls *invariably* place in their nests a quantity of horse manure as soon as they commence to lay. This is apparently removed and more supplied so that by the time the set is completed quite a pile accumulates. This is a sure indication that the nest contains eggs. I would like to hear from other collectors in other localities regarding this habit.

When you approach the nest the birds commence thicking their heads and calling out cuckoo. From this cry the boys in this locality call them the cuckoo-owl. If you go near they fly to some slight eminence near and watch you. If incubation is advanced or the nest contains young, the female remains in the burrow. If you dig down to the nest she is even then loth to leave and may be easily caught and examined more carefully. Many pleasant hours may be spent in watching them.

A. L. S., Anahim, Cal.

April 29, 1889, while out after eggs I came across a Robin's nest in an old shed, upon climbing to the nest I found 4 eggs of the common size, with reddish brown spots, over the entire surface. I have one in my collection now. H. F. M. Quechee, Vt.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, — ALBION, N. Y.

Correspondence and Items of Interest to the student of Birds, their Nests and Eggs, solicited from all.

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Single Subscription. 50c per annum.
Sample Copies, 5c each.
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FRANK H. LATTIN,
ALBION, Orleans Co., N. Y.

Entered at the Post Office at Albion, N. Y., as second-class mail matter.

Our Reply.

A little amateur four page sheet published in one of the great cities of the Empire State has seen fit to give the Oologist and its publisher a gratuitous advertising puff in its editorial columns, this puff we would have never discovered, had not some of our friends to whom samples (?) had been sent, written us very kind and flattering words in regard to both the Oologist and its publisher, and also had we not receive a letter from the publisher of "the sheet" from which we quote— "trust you will reply to our article in last number of our paper, through the columns of the Oologist." Were it not for these circumstances we would have been so busy attending to our own business that the brilliant, suggestive and highly instructive article would have entirely escap-

ed our notice; and even if it had not, we should not have considered of sufficient importance to have noticed it, and now being in the midst of the busiest season we ever experienced, we have neither the time, nor space to devote to a suitable reply, even if the article had been printed by a publication of standing, but as it is we simply make a few statements which, if not already self evident, we can verify with both *facts* and *figures*.

1st The writer of the article is not a true Oologist.

2d. He does not understand his own business, let alone that of the publisher of the Oologist.

3rd. As long as the publisher of the Oologist conducts his business honestly, a disinterested party should attend to his own affairs.

4th. The actual number of paid subscriptions to the Oologist is greater than of all other American publications devoted to ornithology and oology combined.

5th. That the actual average circulation of the Oologist has been *two thousand five hundred* (2 500) copies each issue for the past six years.

6th. A subscriber has never yet complained to the publisher that he was not receiving the worth of his money,

7th. Hundreds have written saying that they would not be without the Oologist for many times its present price.

8th. Should the Oologist have any subscriber, or subscribers that can honestly claim that they are not receiving information in regard to birds, their nests and eggs of greater value to them than the amount invested, we will return their money with *50 per cent. interest*.

9th. The publisher of the Oologist publishes and agrees to publish eight pages of instructive matter relating to ornithology and oology in each monthly issue, if more is published it is the subscribers gain.

10th. The advertising pages are printed at the publishers expense, and should their number ever be so great as to jar the more sensitive natures of our subscribers or the jealous ones of our exchanges, it is our re-

quest that they either overlook or tear them out.

11th. We have several hundred subscribers that would rather pay us an additional 50c. per year than to have the Oologist published without its advertising pages.

12th. That inasmuch as *over four hundred* of the Oologist's subscribers have already paid in advance for Davie's *New Check List* and fully as many more are anxiously awaiting its issue, we know from experience that anything that conveys an idea to the waiting oologist that the work is ever to be issued, is of decided interest.

13th. As to the Oologist "degenerating into a third-class paper," we would simply say that we are willing to submit the last twelve issues of our little magazine to a committee of five *live oologists* and if from their verdict it is determined that the *average* value of *each* issue is not greater from an oological and ornithological standpoint, than *all* the issues of any four-page amateur publication in America during the same period, we will donate to any school or college they may name a collection of bird's eggs worth not less than fifty dollars.

As a reply to the editorial we might suggest the following letter, as it handles the subject with much greater ability and fairness than could possibly be done by the editor of the Oologist. Much value and weight is added to the letter from the fact that it was written unsolicited by a disinterested party, and that further the gentleman is not only an oologist, but an editor of one of the leading newspapers of Vermont, viz: *The St. Johnsbury Union*.

We purposely omit the name of the sheet publishing this "trash" as we have no desire to give it the benefit of "our reply" as an advertisement.

St Johnsbury, May 18, '89.

Mr. Lattin,

Dear Sir:—The last _____ has such an unwarranted as well as false attack on the merits of your little magazine, that I want to offer an unsolicited tribute to its value and merit. From a newspaper standpoint, and my business makes me view

it in that light, what can any one think of a paper which prints such rot as this?

"We are advised that a certain publisher is passing criticisms on the last number of this paper. If we are able to find out who the knock-kneed, long-legged, gamble-shanked, big footed, blear-eyed, dilapidated specimen of a man is we won't leave enough of him to fill a humming-bird's egg.

I took this from the _____ under the head of *editorials*.

Your magazine is well edited, its advertisements have built up my small collection of eggs, as you well know, and the idea that is a third-class paper is false. Success to the Oologist.

Yours Truly,

Arthur F. Stone.

This is the *editorial* (?) I refer to.

The sloobologist of Albion is degenerating. It used to be second to none, but has now degenerated into a third-class paper. About one-half of each issue is taken up with its bargain lists, which bargains no body wants, one-eighth to Davie's new check list and the rest to some scientific disension which interests no one but the person who writes it. "Wake up" Mr. Mattin and save your paper's reputation.

Ground Dove.

Having seen a good deal about the nesting habits of this bird, I will tell what I know about it. I noticed an article by L. S. Morrison, Lake Helen, Florida, in which Mr. Perry says: "Have been collecting for fifteen years and never found nest of this bird on the ground". Out of five sets that I collected in 1888, four were laid on the ground, the nest being simply a slight hollow in the ground, lined with a few straws. Its nesting season is any time from February to October. The bird is very abundant in this county. They become very tame and stay around a house like the Mockingbird. There were two nests built within 75 feet of my house last season. Hoping to hear more about this beautiful bird.

W. E., Thonotosassa, Fla.

GLEANINGS FROM OUR CORRESPONDENTS.

Notes and Items of Interest, Queries and Answers.

L. R. C., York, Nebr., would like to know what part of the U. S. furnishes the best field for collecting and studying the nesting habits of aquatic birds.

W. H. L., Jr., would like to know the correct name of the hawk known as the Blue-darter Hawk, in this locality (Covington, Ga.). We think it is the Marsh Hawk.

Fred Allin, Iowa City, Ia., wants to know the correct name for the Wild Canary, and Ground Chippie of his locality.

J. A. B., Morganton, N. C. Says: 'I would like to recommend to the readers of the OOLOGIST the instrument case, described by J. H. F., Jr., Baltimore, Md., in the Aug., Sept., 1888 OOLOGIST. I recently made one according to directions and it is a beauty. Instead of covering the outside with Alligator skin, I stained it black and varnished it.

H. E. Fisher, Prairie du Sac, Wis., writes. "To-day, Feb. 18th, I found a nest of the Great Horned Owl, *Bubo Virginians*. The nest was made in a hollow tree, of sticks so that it would not go to the bottom of the tree and then some leaves, and then lined with feathers. It contained one egg which measured $2\frac{1}{2} \times 2$ inches, which seems to me to be rather small.

Sam. E. Bacon, Erie, Pa., writes: April 7th, '88. Found the first nest, Killdeer's, one egg. May 26th. Found a Robin's nest in a large cavity in an apple tree. May 30th. Found three nests of the Chipping Sparrow on the ground. They were all in orchards, in long grass.

I have a white egg of Blue bird, unspotted, and a spotted egg of Purple Martin; also a Spotted Sandpiper's, measuring 94×75 , and a Bee bird's, measuring 76×68 ."

From C. J. Schafer, Eddyville, Iowa, we receive the following: Not having seen much news from Iowa, I thought I would send you a few '88 notes from my Field Book.

The first Robin appeared Feb. 21, began nesting April 8th.

First Blue bird appeared Feb. 18th. The first nest was in an old tree April 3d.

First Red-and-buff sh. Alderred Black bird was seen March 13th, found a nest May 27th, in a large hazel bush at the edge of a pond, containing four eggs.

First Shrike was seen March 14th, (I saw one this year in Jan.); began nesting April 20th, and on the 29th found a nest with five eggs.

First Purple Martin appeared on March 18, began nesting April 29th.

A. W. Nolte, of Los Angeles, Cal., took a set of the Costa's Hummingbird on Feb. 3rd, and one of the Black-chinned, Feb. 6th.

A. S., Anaheim, Cal. The Mourning Dove is so common to require a description. The Ground Dove is a very small species no larger than a good sized sparrow and could not possibly be mistaken for the former. In some localities the Mourning Dove nests on the ground.

At a recent sale, in London, Audubon's Birds of America" brought \$1565.00.

We think that the "nearly full-grown, young Grass Finches", found by G. S. J., Jeff. Co., N. Y., on April 19 were Shore Larks.

P. C. W. Walden, Mass. writes of an English Sparrow building its nest over the globe of an electric street light.

I do not agree with the article written by D. B. R., in the Feb. OOLOGIST. He states that Blue-birds either lay entirely white or entirely blue sets. Last summer I found a set of six eggs of the Blue-bird. Two were pure blue and the rest were snowy white. W. E. L., Peoria, Ill.

C. Bacon, Bell, Ky., took two sets of two eggs each of the Gt. Horned Owl on Jan. 12th.

Geo. Boyd, of Roseville, Ills., wants to know the correct name for the "Monse Hawk", a small hawk of his locality.

Several Cal. collectors wish to know how they can distinguish the different species of Hummingbirds.

Frank L. Farley, of St. Thomas, Ont., records his first set of Red-tail Hawks for '89, on April 2nd.

F. C. Grinnell, Ia., writes that a set of the Gt. Horned Owl was taken, at that place, Feb. 9th.

In reply to H. J. K., Elba, N. Y., would say that the Brewer's Blackbird is a western species.

The Bronzed and Purple Grackles are both known as the Crow Blackbird, and that the "Heigho" is the Flicker. "Hell-diver" is doubtless the Thick-billed Grebe, and the "Lazy-bird" is the Cowbird.

S. C. Crump, of West Bay City, Mich., had his collection of eggs on exhibition in Bay City at the Michigan State Poultry and Pet Stock Association's annual show, and they were viewed by about 6000 people during the week. They nearly filled an eight-foot show case and caused considerable discussion. One man would say they are worth a thousand dollars, and then would come an old lady who would say, they are all humbugs, they are painted, they are plaster of paris &c.

A. L. C., Hartwick Sem., N. Y., writes as follows, in regard to finding a set of fine Nashville Warblers on May 20th:

"The nest was built on the ground, on a side-hill covered with small bushes. The nest was built of fine strips of bark and moss, lined with fine hair. The eggs had just began to show signs of incubation".

Neil F. Posson, Medina, N. Y., writes, I observed, on Feb. 22nd, a pair of Red-breasted Nuthatches. They were in company with the White-breasted species and Chickadees. Is not the occurrence of this species, in winter, in this locality, unusual? I had supposed that it was a migrant, and that it wintered much farther south than this.

Davie's Egg Contest, No. 2.

Owing to an extraordinary rush of business, we were unable to announce the result of the Egg Contest in June Oologist. Below we give the result, which must prove very satisfactory to the contestants. The prizes were awarded as follows:

- 1st. Glenn F. Stearns, Texas.
- 2nd. H. G. Askew, Texas.
- 3rd. John B. Bastian Jr., Penna.

The winners of the first three prizes sent orders amounting to from \$5.00 to \$7.55 each.

- 4th. W. H. Smith, N. C.
- 5th. Howard de F. Earle, Conn.

As there were no other orders of \$2.00 or over the 6th to 10th prizes were not awarded.

The balance of the prizes were awarded as follows:

- 11th. H. Myles, Canada.
- 12th. D. W. Wright, Va.
- 13th. Chas. E. Craw.
- 14th. F. E. Atwood, Vt.
- 15th. Geo. F. Guelf, N. Y.
- 16th. W. F. Lewis.
- 17th. Will J. Cosgrove, N. Y.
- 18th. L. H. Grant, N. J.
- 19th. John Skinner, N. Y.
- 20th. G. Lindsay, N. Y. City.
- 21st. J. A. Black, Neb.
- 22nd. W. K. Pratt, Mass.
- 23rd. Geo. H. Bockoven, N. Y.

The winners of prizes No. 11 to 23 sent us orders ranging from 50 cents to \$1.74 each. If any errors have been made in the award of prizes please notify us at once and we will rectify.

Birds of Eastern North America.

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THE ORIGIN OF THE WORK.

Some twenty years ago the author decided to write a work on birds, and in order to gather material for this purpose, began a series of expeditions to various sections of Eastern North America, between the gulfs of St. Lawrence and Mexico, during which some sixteen thousand birds were collected. All of these underwent a close examination, their peculiarities were observed and recorded, and many were dissected and drawings made of the anatomical structure; while careful measurements were taken of nearly all of them. During all this time, notes were being written from observations upon the nesting and other habits of the various species.

Not only were the land birds carefully studied, but special attention was also given to the aquatic species, and many large breeding grounds on the Florida Keys, along the coast and in the Gulf of St. Lawrence, were visited and thoroughly explored. No time or expense has been spared in accumulating material for the work, for the expeditions undertaken for this purpose were necessarily expensive, as the author was obliged to employ many assistants, and thousands of dollars were expended in this way.

THE CHARACTER OF THE WORK.

The descriptions of the birds are all original and were written for the work, nothing which has ever appeared in print before, being given. Each species is described in detail, beginning with the adult, and where it was known, ending with that of the nestlings, while all the intermediate stages are given. The attention of students is particularly called to this point, as thereby any species, even if in obscure plumage, may be readily identified. Another character, which particularly recommends the book to beginners, is the fact that very few technical terms are used, simple words being substituted for the long and too often meaningless cognomens, which have been applied to the various parts of birds. Students will also find that comparisons are given between one species and others allied to it, thus greatly assisting in identification, especially in closely allied species.

The classification used, although similar to that in current use, presents some changes, based upon the anatomical studies. Average dimensions, often taken from many specimens, are given of each species, as well as the longest and shortest individual measured. The distribution and extent of migration of each species is also given, and a detailed description, with measurements of the nests and eggs. The num-

ber of species described is 449. Following the description will be found a popular account of the habits etc. in which are mingled scenic sketches and notes on travel and adventure. The work is provided with full indexes of scientific and common names, and an explanatory list of plates.

THE PLATES.

Thirty-two full-sized plates, drawn on stone and colored by hand, are given. In these are represented twenty-two life-sized figures of birds, with appropriate plants, shrubs etc.; eighty-six heads, also life-sized, representing many genera, and two hundred and twenty-three other figures of sternums, beaks, etc., illustrating family, generic and other characters, making in all *three hundred and thirty-one* figures, which are fully explained either in the text or in the index of plates at the end of the volume. All of the figures have been prepared with great care; in short, no pains or expense have been spared to render this work acceptable to beginners, as well as to advanced students; and judging from the universal expressions of approbation with which the work has been received, as it has been issued in parts, the author's endeavors to please the public have not been in vain.

The following was selected from among many unsolicited testimonials:

"The work is more valuable to me than any other work on ornithology I possess or to which I have access."

PROF. J. W. P. JENKS. Brown University Providence, R. I.

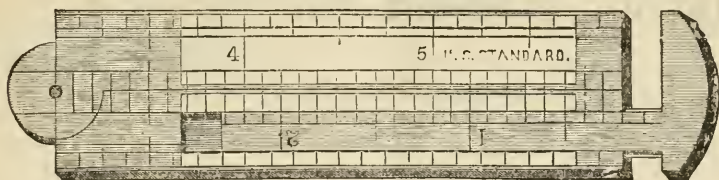
The publisher's price, for this valuable work, was \$18.00, and every copy in their possession has been sold. We have a few copies, bound in cloth and gilt, on hand, with plates partly colored by hand; new copies, not second-hand ones, at only \$12.00 each.

We also have a few copies, strongly bound in boards with leather corners and back-text complete; but each volume lacks from one to six of the original plates, otherwise *new and complete*. Our price only \$10.00 per volume.

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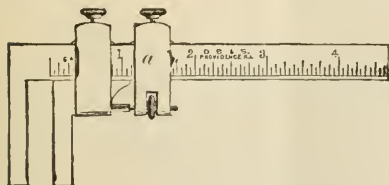
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OOLOGY OF NEW ENGLAND.

BY ELWIN A. CAPEN.

COMPLETE IN ONE MAGNIFICENT VOLUME.

IT CONTAINS AN ACCURATE DESCRIPTION OF

The Eggs,**Nests and****Breeding Habits**

OF ALL THE

BIRDS KNOWN TO NEST

— IN —

NEW ENGLAND.

There are three hundred and twenty-three colored illustrations, all drawn and painted from nature by the author. These have been reproduced in colors, so nearly exact that it requires an expert to detect the difference between the plates and the original drawings. The dimensions and forms are as perfect as it is possible for skillful artists to represent them, and no trouble or expense has been spared by the author to render this work accurate, as regards both text and plates.

The size of the volume is 10 x 14 inches, printed in large type, on paper of the finest quality.

The work consists of twenty-five plates with one hundred and eleven pages of text.

Handsomely bound in cloth, with gilt edges, in one volume, every plate securely mounted on guards, for only \$8.75, or delivered free of postage or express charges for \$9.10. The publishers' price for this work has been \$15.00.

FRANK H. LATTIN,**Albion, N. Y.**

Special Notice.

During the months of July and August we open branch stores at Chautauqua, N. Y. and Atlantic City, N. J. Unquestionably many of our patrons will visit one or the other of these Great Summer Resorts, and we trust that they will not forget to visit our "Curiosity Shops." At Chautauqua you will find our store in the N.E. corner of the "Dock Building," and at Atlantic City on the Board Walk, nearly opposite Applegate's Pier.

Our mail business is carried on *exclusively* at Albion, N. Y., and all correspondence must be addressed us at that place, for we have no time to attend to correspondence at our branch stores, but at our headquarters, Albion, N. Y., we shall endeavor to answer all letters and fill all orders by return mail.

But if you live within 100 miles of either Chautauqua or Atlantic City the trip will well repay you for your trouble and expense, and should you happen to want specimens of any kind you will find a goodly assortment—many which we never catalogued.

You will also find our prices very reasonable and besides, will have the pleasure of picking out your specimens, yourself, which to many is a very important item. Should any of my patrons, or should they not, happen to visit my Branch Stores, while I may not be able to meet them personally, I shall remain as ever,

Yours Faithfully,

FRANK H. LATTIN, Albion, N. Y.

— T H E —

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IS COMPOSED OF

++ 100 + DIFFERENT + MINERALS ++

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All post-paid for only \$1.00. Address, FRANK H. LATTIN, Albion, N. Y.



OÖLOGIST.

Monthly.

50c. per Year.

Vol. VI,

ALBION, N. Y., AUG., 1889.

No. 8

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 2 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

TO EXCHANGE.—I have about 250 varieties of N. American fresh water shells and 200 varieties of N. A. marine shells to exchange for N. A. species of mollusks and butterflies. A. K. FAIRCHILD, Whippany, N. J.

WANTED.—TO PURCHASE COLLECTIONS OF INDIAN RELICS AND OTHER CURIOSITIES FOR WHICH CASH WILL BE PAID. PARTIES HAVING SUCH FOR SALE WILL PLEASE CORRESPOND WITH W. H. H. KING, JACKSONVILLE, ILLS.

WANTED—to exchange collection of 84 varieties of first-class birds' eggs for best offer of eggs in original sets with data. J. H. TALLIET, Austin, Texas.

FOR EXCHANGE.—A good stamp collection. \$1. and a magic lantern with views. \$3, for best offer of first-class birds' eggs before Aug. 30th. O. E. CROOKER, 517 Lake St., Madison, Wis.

COINS, stamps, stamp papers, curiosities and eggs to exchange for coins or eggs. Send list of articles and receive mine. ULYSSES CLARK, Pipestone, Minn.

A Fine Cocker Spaniel Pup, to exchange for mounted birds or Indian relics. Value twenty dollars. Pedigree furnished with pup. W. J. THOMPSON, Sincow, Ont., Can.

WANTED—a first-class ostrich egg and a good typewriter. Have for exchange Birds' eggs, Indian relics, philatelic papers and an old army musket. WM. HUTCHISON, North Star, Alleghany Co., Pa.

I have 50 rare varieties of foreign stamps and 300 mixed, 200 varieties (no common ones) to exchange for first-class birds' eggs in sets or single with data. W. C. ROBINSON, Mt. Washington, Baito, Co., Md.

TO EXCHANGE.—Have sets of the following for other original sets, Lattin's hand-book as basis: 335, 430 b, 301, 387, 304, 357 a, 254, 251, 47 a, 242, 255 a, 61 b, also Western Horned Owl, $\frac{1}{2}$, $\frac{1}{2}$, Poor-will, $\frac{1}{2}$, Mississippi Kite, $\frac{1}{2}$; Sage Sparrow, $\frac{1}{2}$, 1-5, and others. Address, H. Y. BENEDICT, South Prairie, Stephen Co., Texas.

TO EXCHANGE.—Carefully prepared bird skins of Southern Illinois, for sets of birds' eggs, shells or other rare curiosities. Correspondence solicited. Offer stands good for months. Address, DWIGHT KIMZEY, Box 36, Tamaroa, Ills.

INDIAN POTTERY, Fragments from Rock River Valley, to exchange for Arrowheads or Birds' Eggs, sets preferred. Address DARCY BIGGAK, Fulton, Rock Co., Wis.

BOOKS. Papers and Vols. 8, 9 and half of 10 of Ornithologist and Oölogist to exchange for rare first-class eggs. W. INGRAM, Oden, Ill.

TO EXCHANGE.—First-class original sets with data of Nos. 47, 63a, 149a 182, 154, 240b, 261a, 274 and 334. Send your list of sets. WALTER RICHARDSON, 435 So. Moline Ave., Pasadena, Cal.

TO EXCHANGE.—Two sets of each 336 and 337 with Data and Nests. Also Birds' Skins for eggs of Hawks, etc. A. W. NOLTE, Rouland St., Los Angeles, Cal.

WANTED.—Birds' eggs, Indian Relics, Minerals: Curiosities, Books on Natural History, and a good Gun. For the above I offer Books, Papers, Minerals, Eggs, Pair Roller Skates, Climbing Irons and Indian Relics. If you have anything to exchange correspond with me. THOS. HILL, Knoxville, Iowa.

WANTED.—Old war and historical relics, relics over 100 years old of historical value, particularly desired. Write what you have, stating lowest cash price. WM. H. BLEYER, the Irvington, Atlantic City, N. J.

"EXCHANGE EXTRAORDINARY" IS AGAIN RENEWED THIS MONTH, BUT WILL BE WITHDRAWN, ON AUG. 20th. SPEAK QUICK IF YOU DESIRE TO ACCEPT ANY OF THE MANY OFFERS.

TO EXCHANGE.—I have the following eggs in sets with data complete: Nos. 63a, 149a, 153, 170a, 182, 340, 272, 274, 323, 333, 378, 408, 420, 452. W. C. LAWRENCE, Los Gatos, Santa Clara Co, Cal.

I have the following first-class eggs in sets to exchange for other eggs or skins: Bobolink, Chimney Swift, Purple Finch, Warbling Vireo, American Bittern, Golden Crown Thrush, Ruffed Grouse. Also the following singles, Ridgway's Nos.: 19, 382, 394, 395, 408, 473, 477, 489, 490, 492, 493, [512.] 546, 571, 572, 579, [526.] 601, 618, 642, 649, 656, 668a, 673, 755. Cerulean, Blackburnian, Mourning and Hooded Flycatching Warblers' skins to exchange for skins not in my collection. E. J. TABOR, Meridian, N. Y.

I have a collection of eggs mostly in sets, over ninety kinds, and a set of instruments both valued at \$25.00, will sell for \$20.00. MILES S. HURLBUT, Box 135, Portland, Mich.



Your name and address will be inserted in any department, 1 month for 10 cts.; 3 months, 25 cts.; 6 months, 40 cts.; 1 year, 75 cts. Should you desire to have your name printed in more than one department, one-half of these rates will be charged for each additional one.

Let's collectors will not be long in observing the importance of keeping their names showing in this Directory. Collectors and dealers desiring to make sales, purchases or exchanges will not only write to the parties whose names appear in this directory for their wants, but will also keep them posted on "bargains" that they may have for sale cheap; and publishers having papers, etc., that would be of interest to the persons whose names appear in this Directory, will recognize the importance of placing samples etc. in the hands of *Let's Collectors* and will act accordingly.

Collection receives as high as 75% Letters, Postals, Circulars, Samples etc. from having their names inserted one time at a cost of only 10 CENTS in this Directory.
Address, THE OOLOGIST, Albion, N. Y.

BIRDS' EGGS.

Philip Maloney, 2126 No. 20th St., Philadelphia, Pa.
G. M. Sabin, Lock box 741, Malone, N. Y.
H. W. Davis, North Granville, N. Y.
Wm. Brown, Hebron, McHenry Co., Ill.
F. W. McCormack, Box 34, Leighton, Alabama.
W. N. Fleming, Box 1267, Natick, Mass.
Ed. Collett, 1400 Colo. St., Austin, Texas.
E. D. Ball, Little Rock, Iowa.



INSECTS,

Roy L. Lyle, Cedar Springs, Kent Co., Mich.
Oliver T. Hyde, Ellington, Conn.
E. D. Ball, Little Rock, Iowa.

NOTICE. Birds' Eggs For Sale Cheap.

Collectors avail yourself of the following opportunity to secure some fine sets for use in making exchanges etc.: Five sets of Arctic Tern, 1/2, and two sets Leach's Petrel, 1-1, only \$1.00; six sets Leach's Petrel, 1-1, and three sets Arctic Tern, 1/2, only \$1.00. To the first order of \$1.00 I will add a set of Spotted Sandpiper, 1/2; to fifth order of \$1.00 I will add a set of Fish Hawk, 1/2. All sets are strictly first-class with complete original data. Satisfaction guaranteed. Add 10c. for postage.

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CLOTH Cornered Trays, Data Blanks and Shipping Boxes, for eggs. Sample shipping boxes, for mailing frail and rare eggs, for two cents; prevents any possibility of breaking eggs. Address immediately, W. W. ASHE, Raleigh, N. C.

OOLOGY OF NEW ENGLAND.

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COMPLETE IN ONE MAGNIFICENT VOLUME.

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— IN —

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The size of the volume is 10 x 14 inches, printed in large type, on paper of the finest quality.

The work consists of twenty-five plates with one hundred and eleven pages of text.

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FRANK H. LATTIN,
Albion, N. Y.

"SLOOBOLOGIST."

BARGAINS! BARGAINS!!

We find that we have a surplus of the following goods in our store at Atlantic City, N. J. and rather than ship them back home we offer them to our patrons at a **BIG BARGAIN!** If you want anything address at once

FRANK H. LATTIN, ATLANTIC CITY, N. J.

If you want anything you must write at once as we shall close our Atlantic City store by Sept. 15th and all orders for these Bargains must be addressed us not later than **SEPT. 1st.** Orders under \$1.00 cannot be bothered with. Make remittances in most convenient manner. Make all money and express orders, also checks and drafts payable to **FRANK H. LATTIN.** *Remember that all correspondence, all exchanges, all regular orders, and in fact everything except the orders for these Bargains must be addressed us at ALBION, N. Y.*

Name substitutes to the amount of your order, for at these prices we will soon be out of some things. In case we are out of both the goods you mostly desire and substitutes, we will return your money.

We can ship large orders by freight or by Adams, U. S., B. & O., C. & A., or W. J. Express Companies. In all cases will ship in the manner that will cause our patrons the least expense. Birds' Eggs, Data Blanks, Books and Publications will be sent *prepaid.* Trays, Minerals, Fossils, Indian Relics, Shells, &c. will be shipped at purchaser's expense.

BIRDS' EGGS.

Mockingbird	\$ 05	Kingbird	02	The Limpkin	60
Catbird	01	Western do	05	American Flamingo	60
Brown Thrasher	02	Say's Pewee	12	Amer. White-fronted Goose	1 50
Curve-bill do	20	Trall's Flycatcher	15	Widgeon	25
Water Ouzel	40	Ruby-throated Hummingb'd	60	English Teal	20
Bluebird	01	Western Nighthawk	35	Scaup Duck	35
Californian do	10	Pileated Woodpecker	75	Barrow's Golden-eye	50
Black-crested Flycatcher	35	Flicker	02	Old Squaw	35
Cactus Wren	10	Belted Kingfisher	15	American Elder	20
Carolina do	10	Road-runner	18	American Scoter	1 25
Texas Bewick's do	35	Grove-billed Crotophaga	75	Sheldrake	35
House do	04	Short-eared Owl	80	American White do	40
Long-billed Marsh do	04	Texas Screech do	50	Common Cormorant	30
Prothonotary Warbler	25	Western Horned do	1 00	Brandt's do	40
Yellow-breast Chat	08	Hawk do	1 00	Bald's do	40
Long-tailed do	15	Burrowing do	20	Gannet	20
Red-eyed Vireo	08	Duck Hawk	2 00	Black Skimmer	08
White-eyed do	10	Harris's Hawk	75	Kittiwake Gull	40
Loggerhead Shrike	08	European Buzzard	25	Glaucous do	60
White-rumped do	05	Red-tailed Hawk	50	Iceland do	90
Cala do	10	Rough-legged do	75	Great Black-backed do	40
Tree Swallow	18	Golden Eagle	7 50	American Herring do	20
Scarlet Tanager	18	Mourning Dove	02	Ring-billed do	25
Summer Redbird	18	White-winged do	30	Mew do	30
Purple Finch	10	Wild Turkey	45	Franklin's do	50
House do	05	Ruffed Grouse	15	Royal Tern	40
Grass Finch	04	Willow Ptarmigan	50	Cabot's do	40
Lark do	07	Rock do	60	Forster's do	10
Western Lark do	07	Bob-white	10	Arctic do	10
Gambel's sparrow	20	Florida Quail	15	Least do	04
Heerman's Song Sparrow	08	Ward's Heron	30	Black do	10
Swamp do	12	Snowy Heron	08	White-winged Black do	40
Cardinal Grosbeak	04	Louis Heron	08	Fulmar Petrel	45
Texas do	35	White-crowned Night Heron	15	Manx Shearwater	65
Rose-breasted Grosbeak	12	Lapwing	15	Leach's Petrel	15
Indigo Bunting	08	Golden Plover	25	Western Grebe	50
Painted do	10	Semipalmated Plover	1 09	Holboell's do	40
Black-throated do	05	English Shrike	25	Horned do	40
Cowbird	02	Dunlin	25	Eared do	25
Dwarf do	15	Red-tailed Godwit	30	American do	25
Red and buff shoulder'd b'k'd	01	Willet	50	Red-throated Diver	60
Meadow Lark	10	Bartram's Sandpiper	35	Razor-billed Auk	20
Hooded Oriole	35	Long-billed Curlew	50	Common Puffin	20
Bullock's do	10	Whimbrel	35	Black Gull-mot	20
Great-tailed Grackle	20	Red Phalarope	50	Common do	20
Common Crow	05	Northern do	30	Alligator	18
Scissor-tailed Flycatcher	08	Clapper Rail	07	Gopher	25
		Florida Gallinule	07	Shark	15
		American Coot	07	Hammer-head Shark	25

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Snowy, Louisiana, Little Blue, or Black-crowned Night-Heron.....	05
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Alligator.....	10
Am. Eared Grebe.....	10
Black Skimmer.....	04
Am. Herring Gull.....	10
Gannet.....	10
Am. Flamingo.....	25
Marsh Hawk.....	15

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Only about 1000 of each size, and we offer these at less than a dealer can purchase at wholesale.	
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We have the following new books on the various branches of Natural History and offer them at much less than regular prices. All are new Books and cloth bound, unless mentioned otherwise:

Maynard's Naturalist's Guide, a few New Copies at..... \$ 1 00

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We can put up collections of showy and ornamental shells at wholesale prices. If any of our patrons desire to purchase to sell again, or to make exhibits at their County or State Fairs this Fall, they cannot do better than to send us the amount they wish to invest, whether \$5.00 or \$100. From our experience we know just what to send and what will sell. For \$25 we can put up a barrel of shells that had ought to sell for \$75 at very reasonable prices. We already have orders for several barrels from different parties, who will sell the duplicates and get more for them than the whole lot cost them and have the best ones left for their own cabinet or mantel.

We guarantee all assortments to please. Remember we will guarantee a \$25.00 assortment to bring \$50.00 when retailed at very low rates; and you can easily sell from \$50.00 to \$200 worth of shells at any good County Fair. We have sold as high as \$80 in a day at a county Fair. Our stock is very large, and we can furnish at least a dozen different showy shells at \$1.25 a dozen that will go quick at 25c. each. To give an idea of the variety we have on hand, would say that of the Murex alone, we have the Rose, Pink, White, Black, Rock, African and Snipe-billed; besides many smaller species.

Of Corals we can supply at least 20 species—Pink, Rose, Precious, Organ-pipe, Cup, Lace, Leaf, Club, Mushroom, Feather, Fungus, Coral-line, Worm, Star, Palm and half a dozen different branching species and as many more of the flexible species.

Anything obtained at the seaside, we can furnish at lowest prices in large or small quantities.

ATLANTIC CITY BARGAINS, Continued.

INDIAN RELICS.

We have with us Arrowheads of any variety from all noted localities. Also Spearheads, Scrapers, Axes, War Clubs, Celts, Banner and Bangle Stones, Hammer Stones, Discoidal, Pestles, Mortar Stones, Nut Stones, etc., etc.

Good lots anywhere from \$1 to \$100, and as with everything else we handle, we will not only guarantee satisfaction but guarantee the price. Send on what you wish to invest and we will send on a lot on approval to twice the value, for you to select from. If we are satisfied that you are reliable, we will also send shells and minerals on approval to reliable parties, when a deposit accompanies the order.

FOSSILS.

Of Fossils we have a surplus of the "Bird's Eye," *Faustites Canadensis*; "Fish Egg," *Acerularia Davidsoni*, Corals—all polished specimens—from Iowa. The famous Mazau Creek (Iowa) Fossils in variety, Fossil Ferns &c., Trilobites, *Calyptene*, *Naagraensis*, Bad Land Fossils such as *Baculites Compessus*, *Scapites Xodosus*, *Nautilus DeKay* and *Inoceramus* also *Turritella* from Mexico. Will put up collections of the above for one-half what they can be purchased elsewhere. Will guarantee satisfaction on any purchase whether \$1.00 or \$25.00. Send what you want to invest in Fossils, stating about what you want.

MINERALS.

We have a few hundred pounds of labeled, assorted minerals here more than we can use. I will put up boxes as follows:

25 lbs. for \$2.50, 50 lbs. for \$4.00, 100 lbs. for \$6.00. The assortment will contain from 25 to 50 different minerals, all good specimens and such minerals as are contained in our Chautauqua mineral collection. In the assortment we will not put in any one mineral that will exceed in weight over one-twentieth of the amount ordered.

Of the more expensive minerals, such as Amethyst, Quartz Crystals, Fluor's, Geodes, Opal Wood, Brazilian Agates, Electric Stone, Satin Spar &c. In our assortments we will put in a good selection of all.

5 lbs. for \$1.50, 10 lbs. for \$2.50, 25 lbs. for \$5.00, 50 lbs. for \$9.50, 100 lbs. for \$15.00.

A SHELL NAME PIN.

We have in stock beautiful name pins cut from selected Pearl Shells, showing all the colors of the rainbow. The letters in the name are about $\frac{3}{8}$ in. long. They make a very nice present for your mother, sister, cousin, aunt or lady friend. As we have in stock over 100 different names already made, we can furnish almost any name you are likely to order, from Ada to Theresa.

Always write the name you desire.
Price one Pin, 35c.; Three, \$1.00; Seven, \$2.00; or Twelve for \$3.00.

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SPECIFICS.

THE OOLOGIST.

VOL. VI.

ALBION, N. Y., AUG., 1889.

NO. 8

Notes on the Eggs and Birds of Hillsborough Co., Florida.

The following is a list of the eggs taken by the writer during the spring and summer of 1888, and some notes made at time of taking the eggs. I have carefully prepared the notes and trust they will be of interest, and hope to see more such from other states. Write your experiences, collectors, and thus help to popularize oology.

Mar. 6. Took my first set for the season consisting of a set Loggerheaded Shrike, containing five fresh eggs. The nest was placed in a lemon tree in a neglected orange grove.

April 25. Took my second set of Shrike's eggs, in the same grove and am positive, of the same birds. The location of the nest was unchanged to an orange tree. This set also contained five eggs.

April 27. Took my first set of Mocking Bird's, containing four fresh eggs. Nest situated in an orange grove in one of the trees. And the same day I found a set of two, same species, the complement not being complete.

April 28. Visited a large Florida Cormorant and Brown Pelican rookery. The birds had built many nests, but there were yet no eggs. There was perhaps 500 Cormorants and 200 Pelicans breeding on this key which consisted of about 3 acres of heavy mangrove timber. The nests were made in the mangrove trees, from 10 to 35 feet from the ground, and made of coarse mangrove twigs, lined with grass and green leaves (mangrove). They were white with excrement, and filthy.

Apr. 30. Decided to spend the day hunting specimens. 10 A. M. I took my first set of Fish Crow. The nest was situated in a pine tree, about 35 feet from the ground, composed of

coarse twigs. Then walking by a pond and seeing many Boat-tailed Grackles, I commenced hunting for their nests and soon took a set of two. The nest was placed in a low bush, and was bulky, deep and strongly fastened. Composed of very coarse grass. In a few minutes I found a second set of 3. As the pond was nearly dry, I walked out to the center. In a small hole was many small alligators. I found two more sets in the grass, and walked on. My next find was a set of 3 Mocking-bird's placed in a deserted orange grove. The set was fresh. On my way home I walked through a button-wood swamp and discovered a set of 4 Green Heron's. The nest was a frail structure of twigs placed in bushes, 4 feet above water. In a neighboring pond took a set of 4 and one of 3 fresh B. T. Grackles. Reached home tired but happy.

May 1. Took a set of 4 Least Bittern. The eggs were fresh. The nest was a mere platform placed in a cluster of ferns, on the edge of a muddy pond.

May 2. Tramped all day, and took 1 set of 4 Mocking-bird's. Nest in orange tree. Eggs fresh.

May 6. Took a walk up the bay shore and found a set of 3 and one of 2 Boat-tailed Grackles in the pond where I found my first set. The set of 2 was found in the same nest in which I found my first set of 3, (April 30.) I thought it rather odd.

May 15. On my way home from work, found a set of 2 Mocking-bird's eggs. The nest, as usual, was in an orange tree, and composed of orange twigs, root fibers and blue lupen leaves, not so compact and strong as that of the Shrike. The set was fresh and incomplete. In another tree near by I found a set of 5 fresh eggs of the Lg. H. Shrike. The nest was well built of or-

ange twigs and lined with thistle down. The parents sat near by, and the cry of the female was piteous indeed. He, who has not soul enough to feel deep sympathy with the parents cry of distress, is not much of a naturalist.

May 16. Visited the Cormorant rookery mentioned previously, and found vigorous preparations for building going on, but no eggs. Met one of those pesky "plume Hunters" trying to secure an egret or two. He showed me a set of three Green Heron's eggs; they were fresh and placed on a mangrove tree, about 8 feet from the ground.

May 21. Went to a Bayou to hunt Rails eggs, and tramped for hours and found one rotten egg and got disgusted and left. Followed up the banks of a creek and saw two nests containing young Green Herons and got one set of 2 fresh eggs. Saw a nest containing 3 eggs, nearly 25 feet up in a sapling; an unusual height for a Green Heron.

May 26. I again visited the Cormorant rookery, with better success than before. Climbing a mangrove tree, in which all the nests were built, I was pleased to find 3 nests containing 3 eggs each; you may be sure I "jugged" them. The nests averaged 30 feet from the ground. I next took a set of 4, and then 4 sets of 3, 1 set of 2 and 1 set of 1. Leaving the key, went to outside flats to look for Gulls' eggs; found none, and came to a key, and while exploring, found a set of 1 Chuck-wills-widow's. The egg was laid under a young pine tree, on the pine straw. There was no attempt made to build a nest.

May 28. My brother and I started on a trip down the coast to turn sea turtles. We reached Passage Key, 12 miles from Bonifacio, at dusk. Many hundreds of Laughing Gulls hovering over the Island, gave promise of a successful day to come; so retired full of pleasant expectation.

May 29. Arose, and after lunching,

we landed and proceeded to hunt for eggs. The key is covered with tussocks of coarse grass, and in this the Gull usually makes a wallow and deposits her eggs, but sometimes she lays on bare sand. We had found one set of three, 6 sets of 2 and 3 sets of 1, by noon. Then entering a thicket, on the edge of a pond, in the key, we found a colony of Louisiana Herons, nesting, and obtained 8 sets of 3 and 1 set of 2. The nests were made of loosely arranged sticks and very poorly constructed. Wading along the edge of the pond, I discovered 2 sets of 3 fresh eggs of Grey Kingbird. The nests were remarkably thin and weak, composed of brown fibrous material and placed about 6 ft. up. Also found one set of B. T. Grackles, 3 fresh eggs in the set; nest placed in mangrove limb, overhanging the water.

June 3. Returning with a load of turtles and turtle's eggs, we landed again on Passage Key and collected 15 sets of 3 and 2 sets of 2 Laughing Gulls. Leaving the key at noon, reached home safely.

June. Myself, a gentleman and wife went to Passage Key. I found 1 set of 3 and 3 sets of 2 Laughing Gulls. On the northern end of the key the Black Skimmers were nesting on a bare sand spot. proceeded thither and found 2 sets of 3, 1 of 2, 8 singles. Leaving late, we sailed home.

July 29. While on my way to work, passing through a low piece of ground, I flushed a Night Hawk and was much pleased to find a set of two fresh eggs. The variation in the set was very marked, one egg being quite dark and very thickly spotted with brown, and the other nearly white with only a few blotches on its surface. The eggs were laid in a most open spot and there was not even a wallow to serve as a nest.

This completes the list of specimens taken during the year 1888. During the present year, expect to take many new species (to me) and will send in

such notes as I think may be of interest from time to time. Let us see more original articles in the OOLOGIST.

C. S. M.,
Bonifacio, Florida.

The Shore Lark in Canada.

On the 20th of this month, March, I found a nest of the shore lark, which I think must be the first of the season for this latitude. The nest contained 3 fresh eggs. None of the early sets I ever found of this species ever numbered more than 4 eggs, and once only 2, which were the first I had found of this bird. The largest set I have taken is 6 eggs. It seems to me that the Shore Lark begins nesting in March as soon as bare ground appears and exposes the dead grass with which they make their very plain nest, which so much resembles the surrounding earth that to find it without flushing the bird or watching her to her nest is a pure accident.

Very often in this locality we have a heavy snow fall late in March, or early in April, which must destroy nearly all the early broods, but some certainly escape for I have seen large young of this species following their parents in April while some snow still lingered in the fence corners.

I well remember the first nest of this species which I found. It was placed on the bottom of a large gravel pit. I had seen a Shore Lark fly silently out of this pit whenever I came near to it, and I searched carefully for a nest, but owing to the size of the pit, perhaps $\frac{1}{4}$ acre, or most likely the sameness in appearance of the nest and gravel, I failed to find it until the morning of April 3d, 1879. On the previous night there had fallen about 3 inches of snow, and I thought "now's my chance to find that nest." I approached the pit carefully and looked over the bank and saw the bird rise leaving a small bare spot on the ground where she sat. I ran down in glee to the nest, and found that it contained 2

eggs which proved to be rotten. During the next night snow fell to the depth of 13 inches. Now can you imagine such a thing as birds hatching eggs beneath a foot of snow? During the next day or two many shore larks came to the barnyard and lingered about until the snow melted. For several seasons, late in March when the weather was very cold and snow deep, I have shot a few Shore Lark and found that the females invariably had bare and wrinkled bellies which proved that they had been endeavoring to hatch their young, but had been overtaken by adverse weather.

JOHN A. MORDEN,
Hyde Park, Canada

The Belted Kingfisher.

The Belted Kingfisher is found throughout North America, its color is blue above and the lower parts white, the length is about thirteen inches and the extent of the wings twenty-two. Its flight is rapid and it often suddenly stops, like a Sparrow-hawk, and hovers over the water, dashing headlong after its prey which it carries to the nearest stump or tree and swallows instantly. It follows the course of rivers, even to their source and its presence near a stream is good evidence that fish are abundant.

The nests are made in holes dug to the depth of from four to six feet in a bank, the entrance being just large enough to admit the bird, and the end rounded like an oven.

The eggs are generally six and pure white. Incubation lasts about 16 days being performed by both parents.

May 19, 1888, I took five eggs of this bird from a hole in a high river bank. This nest was not more than 2 feet from a nest that I dug out in 1887.

May 28th, I dug out another nest containing one egg. This probably completes the set found on the 19th.

EDWARD L. KITTREDGE,
Milford, New Hampshire.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

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Can Quails be Domesticated.

Some one asks through the OOLOGIST if the Bob-white or Quail can be domesticated. I will tell you an incident that came under my own observation. When I was quite small my parents moved into the country, thinking the free life of a rural home would be much healthier for growing children than to keep them housed up in town in a sea of smoke and bricks and mortar. And so it proved to be.

There were very few Quails on the place when we moved there, they having been killed off by hunters from a town close by.

After father took possession he would not kill the Quails nor permit others to do so; consequently it was not long

until the birds of all kinds began to know where they were welcome and where they would be protected. The Quails each year became more plentiful and not so wild, until one pair more trusting than the rest, came into the garden and made their nest in a bed of onions only a few yards from the house. They grew so tame we could part the onions and look in upon their quiet home without the old one leaving her nest. After the young were hatched they remained about the garden until winter set in, when they went to the woods for shelter, returning occasionally, each time with their numbers diminished.

When spring came the old ones came back and took up their abode in the garden again, this time making their nest under the projecting end of a rail but a few feet from where they had built the year before. When the female had been sitting about ten days we went out one morning to find her torn from her nest and devoured, presumably by some prowling old cat. This, we thought, would scare our friends away, but the remaining bird mourned his loss for two or three days, then took possession of the nest, and, to our great surprise, hatched every egg. They scarcely went outside of the garden until they had their growth. They took great delight in getting into some hotbeds in the garden to dust their feathers, often causing sad havoc among the young plants. If they had turned every hot-bed in Christendom topsy-turvy, it would not have lowered them any in our estimation for they seemed almost a part of our family. We never tried to house them, but for several years would plant a patch of pop-corn in the garden for them to stay in, and to have a place to feed them. We fed them principally on sorgum seed, gathered in the fall and stored away for their especial benefit. They knew as well as a flock of chickens,

where to come for their feed, and were a great deal tamer than a great many chickens are. The last winter we were on the farm, we fed seventy-six. To see such a flock eating their breakfast, and hear their chatter of delight, is a sight never to be forgotten.

I have not the slightest doubt but with patience and care they can be domesticated and taught to go in a house to roost.

Miss L. I. C.,
Richmond, Ind.

Red-tailed Hawk.

Buteo borealis (Gmel.)

This bird is a common resident throughout the year in this locality and one of the most familiar sounds from early spring till midsummer, is its weird cry as it slowly sweeps in majestic circles high above the timbered bottom lands or grassy prairies in search of their favorite food, timber rats and field mice. This much slandered bird, known in every state in the Union as the "hen-hawk," is ruthlessly shot and poisoned by young and old whenever the opportunity is presented, simply because his smaller and much bolder cousin, *Accipiter cooperi*, makes his meal of poultry occasionally. I have been a close observer of the local *Falconidae* for several years, and although I have on several occasions seen the Coopers Hawk dash into the barn-yard and bear away a chicken or young duck, I have yet seen *Buteo* take poultry of any kind, although he may do this in other localities.

The Red-tailed Hawk is almost invariably seen in pairs throughout the year. During the latter part of February and first March they confine themselves almost exclusively to the vicinity of the nest they had used the previous year and by March 15 they have completed their set of eggs. If they are left undisturbed the young will appear

during the second week in April. They are large, awkward, helpless things and remain in the nest for four or five weeks, or until they are full grown and full fledged. From the time the young appear until they leave the nest, the parent birds are untiring hunters and the amount of rats mice, etc., that they bring to feed the ravenous crew is surprising.

Within a radius of a few miles of my home are least seven nests of this bird that have been occupied annually for years, and apparently they never change owners. They are invariably placed in the highest trees in the immediate vicinity, without regards to variety, for I have found them in oak, elm, bass and sycamore, the distance from the ground varying from 50 to 80 feet. There is very little variation in the build or material used in these nests. They are usually about 30 inches in diameter by 20 inches in depth on the outside and only slightly hollowed on top, composed of dead branches of the size of one's thumb, interwoven with smaller twigs. They are usually lined with shreds of grapevine bark, but some have only a few twigs of cedar, and others are partially lined with cornhusks.

Davie gives the number of eggs in set as generally three, sometimes two or four. Size 2.40 by 2.00. Goss in his work on Kansas birds, gives number of eggs in set three or four, size 2.30 by 1.84. My observations do not exactly agree with those gentlemen, although they were undoubtedly correct as far as their localities are concerned. During the last two seasons I have taken two sets of *Buteo borealis*, two sets of three each and five sets of two. I also climbed up and examined three other nests whose contents I did not disturb. One contained two eggs, the others each contained two young birds. From these observations I have come to the conclusion that in this locality two eggs is the usual complement, occasionally

three. The eggs, like the eggs of all the Raptores, vary greatly both in size and markings. The ground color is bluish white and the normal specimen is uniformly spotted over the entire surface with large and small spots and blotches of reddish brown and amber. I have one egg in my collection that entirely lacks the markings, only having a faint brownish tinge on the smaller end. Another has a large, mottled reddish-brown blotch entirely covering one side, while the other side is free from markings of any kind.

The average size of the sixteen eggs I have collected is 2.43 by 1.86. The smallest measuring 2.37 by 1.81 and the largest 2.53 by 1.90.

This bird shows none of the pluck and dash in defending its nest that is often seen in the smaller hawks. When the nest is being rifled it generally sits on some lofty tree in plain view, but hardly ever approaching within one hundred yards of the collector. Their persistency in keeping the same nest year after year is wonderful. When once they are established it is almost impossible to dislodge them. Last year, 1888, I took a set of eggs on March 18th and another on April 8th, both from the same pair of birds, and on May 3d they had again deposited a set of two which I had not the heart to take. The young from this set did not leave the nest till the latter part of July.

Although I have never had the opportunity to examine minutely the plumage of the adult bird or take measurements, still his general appearance is almost as familiar to me as is that of the barn-yard fowl, and undoubtedly every collector in the Union knows the bird at sight, which he first identified by seeing the brick red color of the under side of the tail feathers.

March 20, 1888.

D. B. R.,
Beattie, Kan.

An Untimely End of a Set of Brown-headed Nuthatch Eggs.

There is a saying that there is always some bitter with the sweet, so it was with my first eggs collected this year ('89). On the 15th of March, with a companion, I started, afoot, for a little hunt of a day or two, after Gt. White Heron eggs. Our course led through a desolate pine forest for eight or nine miles. We trudged along the sandy road for several miles without seeing anything of note when I suddenly caught the sound of a Brown-headed Nuthatch's clatter. I called the attention of my companion to it, but was about to pass on again when the noise was repeated. This time there was no mistaking the sound. Going in the direction of the sound, we were soon rewarded by seeing a Nuthatch hanging to the side of a snag, about eight feet high, flipping his tail up and his head down, each time uttering an alarming cry. On our near approach the bird flew to the trees, and there in the side of that rotten stumb was a tiny hole scarcely an inch wide. With great care a small portion of the rotten wood was broken away and my companion peeped in. Then he jumped up and gave such a yell as old Florida hasn't heard since the Seminole war, and said "Gill there is two eggs in there." Then we both yelled and rolled on the ground and yelled some more. After we had got our happiness somewhat under control, more of the rotten wood was taken away, and lo! not two, but *seven* beautiful fresh eggs met our gaze. O! they were pretty; I can see them now, six lying in a circle around one in the middle.

The nest was composed of bits of wool and pine bark, together with fine chips of rotten wood. We soon had them secure, and "went on our way rejoicing." Now this was the sweet part, the bitter came that night.

Our camp was in an old cabin where an unscrupulous "bachelor" lived, who, it seems, could not tell a hat lying on the floor, with a handkerchief spread over it, (for in this were the precious Nuthatch eggs) from his Sunday shoes and socks; so when he went to get ready for a dance that night, the hat with the handkerchief were grabbed up to put on his unworthy feet, when dip, dip, dip, went every egg on the floor. Now this was the bitter.

T. G. PEARSON,
Archer, Fla.

Broad-Winged Hawk. Black-capped Chickadee.

April 20th, at Bradford, Mass., I found a set of two eggs of the Broad-Wing Hawk, incubation just begun. The nest was situated in an oak tree 49 feet from the ground, composed of sticks and lined with grass. The female left the nest when I got within 30 feet of it; so I had a good chance to identify her. The measurements of the eggs were 2.10x1.70 and 2.12x1.70.

April 26, at Bradford, Mass., I found a nice hole excavated in a dead popular stub about 7 feet from the ground. The tree was in a second growth of hard wood and near a clearing. Went to it again May 5th and found a nice nest inside made of green moss and lined with rabbit hair. Thought it was about completed but could not see any bird around. I thought I would give them time to complete the set, so I did not go to it again until May 15th. Then I went to it very carefully so as to see the bird and find out what I had found. I did not see anything that looked like a bird, so I pounded on the tree right side of the nest, and no bird. So I got up to it and looked in but could not see anything. In going up to the nest May 5th I took hold of a limb near the nest to help me get to it, and it broke off and exposed the side of the nest, so I went

to work and cut a piece of bark from the same tree, and made some pins of hard wood, and nailed it over the break so as to shut out the light and rain. But as I was taking off the bark I had nailed on, a little bird went out of the hole like a flash of light, and lighted on a tree about 20 feet from me, and I saw it was what I had thought from the first it would be, a Black-capped Chickadee. I cut a little more away from the side hole and soon had a fine set of eight eggs packed in my box. I put the bark back over the hole, but hardly think they will use it again. If they do, I will let you know later on.

C. S. B.
Haverhill, Mass.

Bluebirds Laying Albino Eggs.

In reply to W. J. S.'s query in Vol. 5, No. 12 of the OOLOGIST regarding the identification of my Albino eggs of the Bluebird, would say they were identified but no peculiarities were observed and think there were none I am sure they were only the common Bluebird for after I collected this set of Albinos I watched the vicinity for about two weeks, when to my surprise, on going to the same tree which I collected the Albino from, I found they had carried a little more fine grass and relined the nest. I made it my business to attend the site daily for three or four days when to my disappointment I found the nest to contain one pale blue egg. This set of four for four was all she laid, was of a very pale light blue, in fact they were almost as light again as the usual run of the eggs are. They were also blunt or more rounded at the small end than is generally found. I find the average egg of the *Sialia sialis* is pointed like all the small eggs but my set of five Albinos and this set of four were rounded. I will close hoping the above will interest W. J. S., if not others.

C. B. COOK.
Odin, Ills.

Gleanings from Our Correspondents.*Notes and Items of Interest, Queries and Answers.*

In Feb. No. OOLOGIST Mr. N. F. POSSON, of Medina, N. Y., says in his article that he saw a "Horned Lark" on Jan. 1st. I saw the Horned Lark on Jan 25th for the first time this year. Would like to know if this can be beaten; I found a nest of the H. L. on March 28, '86; contained 4 eggs. Geo. L. White, Mt. Morris, N. Y.

Eugene Fernholtz, Jefferson, Wis., has in his collection an end-blown egg of the Blue-bird. It is of a white color having a circle of blue about one-sixteenth of an inch wide and about one-fourth inch from the small or tip end.

Under date of Feb. 24th, E. L. Menefee, of San Jose, Cal., writes:

"The egg season here has hardly commenced yet. I found a set of 402 e the 20th inst., which is unusually early for this section. Although I frequently hear of owls nesting even in January in the Eastern states, this is the earliest date that has come to my knowledge while collecting in California for several years. The next eggs which the wide-awake Californian oologist may seek for are the Least Tit, Plain Tit, Meadow Lark and Shrike. Robins have been unusually scarce in this section this season, as they were unusually plentiful last. I have not seen more than a dozen the whole season; the first in October and the last on the 23d inst.

The Bluebird, House Finch and Green Backed Goldfinch are among the arrivals that have become common. Swallows have just arrived and I have seen a few doves, although I suspect they were some that wintered here.

We have received many letters from collectors in the various states and Canada making inquiries as to whether it

is unlawful to collect bird's eggs in their respective localities, and if so, how they can obtain a permit to collect? As the laws in the various States, Provinces, and we might say localities, vary, we must advise collectors to consult some legal friend. But we might add that the *true oologist* or the collector of eggs for scientific purposes is rarely molested and that in most localities the law either allows him to collect or a permit can be obtained through a lot of (un)necessary (?) "red tape."

E. G. B., of Monson, Me., sends us an egg of the Olive-backed Thrush and gives the following very interesting description:

"The bird is, I am quite sure, some species of Thrush, but I can find no description of nest, eggs, etc., in Samuel's 'Birds of New England,' which coincides with that of this bird. The bird strongly resembles the Hermit Thrush in color and markings, when seen at a little distance, but is considerably larger. It also has a note very much like that of the Hermit Thrush when the nest is approached. It breeds very commonly here. The nests that I have seen, and I have seen a large number, was placed in a cedar tree from four to ten feet from the ground, and with one exception, within a few feet of a pond or stream of water. The nest is constructed of birch and cedar bark, grass and leaves. It is quite deeply hollowed and lined with grass and leaves. I can not say positively whether any mud was used or not, but think there was not. The eggs are usually four in number. Some that I have seen much larger spots than the one I have sent you."

For the Oologist.]

The Wilson Ornithological Chapter of the Agassiz Association.

This Society was organized Dec. 3, 1888, in order to investigate the habits

of our American birds and to turn to advantage the observations made by our ornithologists and oologists.

Our work for 1889 will be on the family of Thrushes.

In the first report, due in April, members will enumerate the Thrushes known to occur in their locality and

1. State, by using the abbreviations indicated, to which of the following five categories each species belong:

1. Permanent Resident, or found regularly throughout the year (R).

2. Winter Visitant, or occurs only during the Winter season, passing north in the Spring (W V).

3. Transient Visitant, or occurs only during the migrations in Spring and Fall (T V).

4. Summer Resident, or known to breed, but departs southward before Winter (S R).

5. Accidental Visitant, or straggler from a remote locality (A V).

Also indicate the relative abundance, as: Abundant, Common, Tolerably Common or Rare.

Synonyms: Enumerate all common names applied in your locality, to these birds.

The second report, due July 1,

II. Migration: Note: When the species is first seen and number observed at this time. 2. When it is next seen. 3. When it becomes common. 4. When the bulk departs. 5. When the last individual is seen.

In the Spring Migration under 4 and 5 would be given the date when the Transient Visitants at your place depart northward; and in the Fall Migration should be noted, the date at which they arrive from the North and at which they go South.

Habitat: Are they found in forests, marshes, dry uplands, on borders of ponds or lakes, running streams or near dwellings? Can you give any reason for this choice of location?

Nesting: Give full particulars of

construction, position, height from ground, locality, proximity to water, contents of nests, as eggs or young, exact date, incubation of eggs, identification and composition of each nest found during the year. Descriptions of sets, giving, in addition to particulars concerning nest and surroundings, *the size and coloration of each egg* are especially desirable. Describe peculiar situations of nests. Do the eggs laid late in the season differ in size, color or number from those laid earlier?

If so, state fully your authority.

Natural Enemies: Enumerate the birds, mammals or reptiles which have been known to disturb, or attack any of these species. Give all methods and artifices used by the birds for their protection from enemies or storms.

Third report, due Oct. 1.

Any additional notes on the preceding reports and: Number of broods raised by one pair of birds in one season, giving full particulars. If possible give the length of time required before the eggs are hatched from the time they were laid and the length of time each brood is cared for by the parent birds.

Habits: Explain all peculiar habits. Describe flight. When on the ground do they hop, or run?

Song: Favorite time of day or night; influence of weather on its song; difference between song of male and female.

Relations with Cow-bird (*Molothrus ater*): are any of these species imposed upon by the Cow-bird?

Give particulars, date, etc.

Fourth report, due Dec. 1, will be on the Fall Migration and additional notes on the preceding reports.

In addition to this general plan, our members, in those states where we have a sufficient number of observers, have selected two common summer residents which can be studied to special advantage in their locality, for their special attention.

No dues or entrance fees are exacted. Members are added with the approval of the President. Owing to our large membership our reports can be published at a merely nominal cost for each member who desire to purchase them.

□ We have now a strong and enthusiastic organization, and cordially invite all ornithologists and oologists to join us in advancing our favorite science. Applications for membership may be made to

J. B. RICHARDS, President,
Fall River, Mass.
or LYNDY JONES, Secretary,
Grinnell, Iowa.

A Bit of Biography.

John Jame Audubon, the greatest of American Naturalists was born in Louisiana in the year 1780. When quite young he was passionately fond of birds, and took delight in studying their habits. In 1797 his father, an Admiral in the French navy sent him to Paris to be educated. When he again returned to America he settled on a farm in Eastern Pennsylvania, but afterwards removed to Henderson, Ky., where he resided several years, supporting his family by trade, but devoting most of his time to the pursuit of his favorite study. In 1827 he went to England, and commenced the publication of the "Birds of America" which consists of ten volumes—five of engravings and five of letter press. Cuvier declares this work to be "the most magnificent monument that art has ever erected to ornithology." In 1830 Audubon returned to America and soon after made excursions to nearly every section of the United States and Canada. A popular edition of his great work was published in seven volumes in 1844 and "The Quadrupeds of America" in six volumes, three of plates and three of letter press in 1848.

He removed to the vicinity of New

York about 1840, and resided there until his death which occurred in the year 1851, at the age of 71 years. He knew all birds either by their flight or voice so thoroughly did he know the feathered tribe of America.

PAUL B. HASKELL,
Ashland, Ky.

The Burrowing Owl.

During a short stay in California in 1888, it was my fortune to obtain a set of Burrowing Owl's eggs. I was returning home from a collecting trip one day, April 21, tired and not in a very good frame of mind, for I had not had much success that day, when I saw one of these birds fly up a short distance ahead of me, and on drawing near I discovered a hole which I rightly conjectured was the bird's burrow. It was too deep for me to reach the bottom with my hand, but I returned the next day with a spade and after digging about a foot in the ground I again tried to reach the bottom of the nest, and felt a feathery substance, which was the old bird. I caught her firmly by the wings and drew her forth, and proceeded to examine the nest, which contained 8 pure white eggs, incubation advanced. The nest was about $2\frac{1}{2}$ feet deep, and at the entrance was about half a foot in diameter. It did not run straight into the ground but in a slanting manner.

I took the old bird home but afterward gave her her liberty, for as I robbed her of her eggs, I would not commit a further indignity by robbing her of her freedom.

The Burrowing Owl breeds from the Mississippi River west and is found plentifully on the plains in that region. It is said that it often inhabits the same hole with a rattlesnake or some small burrowing animal, but I do not think it does in California.

L. C. A.
Kentucky.

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Arranged and numbered according to the new A. O. U. Nomenclature. This work has become indispensable to all students of Oology; assisting them in identifying Nests and Eggs while in the field, and has taken the place of those expensive works, usually beyond the reach of many collectors. The third edition is the final stereotyped one, and is the most complete, accurate, and valuable work of the kind in existence, (Cones' Key and Ridgeway's Manual not excepted). It contains descriptions of all the Nests and Eggs of the land and Water Birds of North America, including European Species known to occur in America, known to date together with the breeding range and habitat of the species and ornithological synonyms. It has a complete analytical index and 13 full page illustrations. The work contains 475 pages, exclusive of title-page, preface and Introduction. The price of this valuable work is as follows: Bound in paper \$1.25, or strongly and handsomely bound in cloth \$1.75. Sent prepaid upon receipt of price. So valuable and expensive work would be cheap at \$3.00, or even \$5.00.

We have sold several hundred copies of this invaluable work before it was issued, and in Sept. OOLOGIST will be able to tell what our patrons think of it.

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86 Pages of Valuable Information.

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Mr. Greenwood of this firm, who is well known as a naturalist and taxidermist, will give special attention to the collection, for scientific purposes, of all birds, beasts, reptiles and insects native to the interior and border of Mexico, and will furnish careful data in regard to same when desired.

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For the convenience of our patrons we have arranged the following sets of samples any of which will be sent prepaid upon receipt of price:

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Gummed Labels, useful for any business, 10 styles.....	03
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Datas, Labels and Blanks, sheet of 20 Samples,.....	02
Checking List, contains names and numbers, both Ridgeway's and A. O. U.,.....	02
Cork, 3 grades,.....	03
Insect Pins, 8 sizes,.....	03

We will send all the above samples, if ordered at one time, for only 20 cts.

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A choice specimen of anything on this list will be sent postpaid for 25 CTS, or we will send the entire collection, 41 specimens, packed in a neat wrapper for less postpaid 50 CTS, 50 CTS, 50 CTS.

No. 1 Resurrection Plant, Mex.	29 Alligator Tooth, Indian River, Fla.
2 Card Marine Algae, Martha's Vineyard	30 Oriskany Stem, Cumberland River, Tenn.
3 25 var. Foreign Swamp	31 Coral Fungus, Bahamas
4 Sea Shell, Nassau, Bahamas	32 Petrified Wood, Sonoma Co., Cal.
5 Starfish, Cape Cod, Mass.	33 "Electric" Stone, Jeff. Co., N. Y.
6 Bark from Cork Tree, Spain	34 Sand Shark Egg, Atlantic
7 "Big Tree" Bark, Mariposa, Cal.	35 Flexible Coral (Sclerites), Tonga Isles
8 Sand Dollar, Casco Bay, Me.	36 Limpet, Bahamas
9 Chinese Gnat	37 Bloodtooth Shell, Nassau
10 Tusk Shell, W. I.	38 Fossil Shark Tooth, B. C.
11 Cyprinoid Coral, Singapore	39 Cyprinoid or Shell Diver, Bahamas
12 Cypris larva, Singapore	40 Native Lodestone, Magnet Cove, Ark.
13 Cypris Aedeia, Ambonia	41 Olive Shell, Zanzibar
14 Cypris Ambonia, B. I.	42 6 Guinea Peas, Bahamas
15 Red Sea Bean, Bahamas	43 Piece of Looch, Japan
16 Gray Sea Bean, Nassau, Bahamas	44 2 Egg Capsules of Penicillaria, Atlantic
17 Egg-headed Sea Bean, Bahamas	45 Piece of Tape Cloth, made by the natives of Maricao Isles
18 Screw Shell, China	
19 Branch Coral, Bahamas	
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Special Notice.

During the months of July and August we open branch stores at Chautauqua, N. Y. and Atlantic City, N. J. Unquestionably many of our patrons will visit one or the other of these Great Summer Resorts, and we trust that they will not forget to visit our "Curiosity Shops." At Chautauqua you will find our store in the N.E. corner of the "Dock Building," and at Atlantic City on the Board Walk, nearly opposite Applegate's Pier.

Our mail business is carried on *exclusively* at Albion, N. Y., and all correspondence must be addressed us at that place, for we have no time to attend to correspondence at our branch stores, but at our headquarters, Albion, N. Y., we shall endeavor to answer all letters and fill all orders by return mail.

But if you live within 100 miles of either Chautauqua or Atlantic City the trip will well repay you for your trouble and expense, and should you happen to want specimens of any kind you will find a goodly assortment—many which we never catalogued.

You will also find our prices very reasonable and besides, will have the pleasure of picking out your specimens yourself, which to many is a very important item. Should any of my patrons, or should they not, happen to visit my Branch Stores, while I may not be able to meet them personally, I shall remain as ever,

Yours Faithfully,

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N. B.—Our patrons visiting Silver Lake, N. Y., should not fail to visit the Curio. Bazaar on Assembly Grounds, near Post-office and Book Store. All orders for our goods that you do not find already in stock will receive prompt attention.

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SPECIAL NOTICE.

All copy intended for the OOLOGIST must not reach us later than August 15th, or at the very latest, 20th. Send in your exchanges and ads. *early*.

EXCHANGE EXTRAORDINARY.

THIS OFFER EXPIRES ON AUGUST 20, 1889.

I want at once the following first-class eggs, either single or in sets, in exchange at full *Bulletin* prices, or if in sets I will allow 10 per ct. above these prices, in exchange for the articles mentioned below. Eggs taken in large or small quantities. No exchange amounting to less than \$1.00 can be "bothered with" unless 10c additional is enclosed for return postage and packing. If you have any of the rarer species to offer, send lists.

Species wanted, Ridgway's No.'s.:

No. 2, 4, 11, 51, 56, 60, 63, 67, 70, 93, 99, 115, 122, 128, 135, 149, 151, 161, 168, 181, 198, 231c, 237, 242, 244, 245, 248, 251, 260, 263, 264, 270, 271, 277, 282, 289, 293, 306, 312, 320, 326, any of the Hummingbirds, 351, 353, 354, 357, 361, 382, 387, 388, any of the Owls, Hawks, Buzzards, Vultures or Eagles, 459, 473, 477, any of the Quails, or Herons, 498, 501, 516, 552, 555, 569, 572, 574, 582, 583, 601, 609, 618, 643, 643a, 649, 673, 679, 686, 687, 688, 723, 735, 760.

In return for the above I will give any of the following articles, specimens or supplies at the prices quoted.

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No. 1, 8-100 Egg Drill,08
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Oologist without prem. from date to Jan., '90,30
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Club-spined Urchin50
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Lucky Tooth of Codfish,15
Starfish, Martha's Vineyard, fine,25
Six Cards Marine Algae,50
Pod of Royal Ponciana or Sabre Bean, .. .. .	.50
" very curious, .. .. .	.35
Rajah or Beetle Nut, .. .. .	.15
Brown-banded Sea Bean, .. .. .	.10
Red Sea Bean, .. .. .	.08
Gray Sea Bean, .. .. .	.03
Trilobite, Calymene Niagaraensis, .. .. .	.40
Scaphites, from Black Hills, choice & desirable, .. .. .	.50
Resurrection Plant, .. .. .	.15
An extra fine Rose Coral, .. .. .	.25
Barnacle, Pacific, a choice double specimens .. .. .	.25
Polished Agate, pendant, can be worn as a charm, .. .. .	.25
Indian Pottery, fine specimen, .. .. .	.25
Sea Fan, 6 in., extra fine, .. .. .	.50
Alligator Tooth, fine, .. .. .	.25
Chinese Coin, .. .. .	.10
" 3 var., .. .. .	.25
Foreign Coin, over 100 years old, date plain, .. .. .	.25
100 Foreign Stamps, all different, .. .. .	.30

SHELLS.

All extra fine bright specimens.	
Tellina radiata, .. .. .	.10
Oliva inflata, .. .. .	.10
Cyprea lynx, .. .. .	.10
" caurica, .. .. .	.10
" vitellus, .. .. .	.10
" helvola, .. .. .	.10
Mercenaria Laiteri, .. .. .	.15
Purpura patula, .. .. .	.15
Murex pudoricolor, .. .. .	.15

Oliva fusiformis, .. .. .	.15
" litterata, .. .. .	.15
Chiton, squamosus, .. .. .	.10
Fissurella Barbadosensis, .. .. .	.10
Strophia glans, .. .. .	.10
Cyprea caput serpentis, .. .. .	.10
" moneta, .. .. .	.10
Dentalium entalis, .. .. .	.10

NOVELTIES.

Little Brown Jug, .. .. .	.05
Collector's Puzzle Whistle, .. .. .	.15
Bird Warbler,10
Catapult Gun—wood frame,25
Box Charaoli's Serpent Eggs,20
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BIRDS' EGGS.

Curve-billed Thrasher,50
Black-throated Sparrow,	1.00
Texan Cardinal,75
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Bullock's Oriole,15
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Wild Turkey,75
Willow Ptarmigan,	1.25
White-crowned Nightheron,35
Lumpkin (extra fine 2nd class),	1.00
Barrow's Golden-eye,	1.50
Am. Flamingo, set of 1 with data,	1.25
Noddy Tern, .. .. .	.75
Sooty Tern, .. .. .	.50
Bridled Tern, .. .. .	.50
American Eared Grebe,	1.50
Franklin's Gull,	1.00
American Scoter,	2.50

If you desire to obtain anything on the above list in exchange, send on your eggs at once. If you have no eggs, but have other desirable specimens in quantity, write what you have with price; or will exchange for collections or fine Postage Stamps, or books on Natural History, or choice Indian Relics.

Only first-class specimens accepted at any price. All others returned at senders expense.

We will receive hundreds of packages in answer to this exchange, and if you do not write your name plainly on the outside of the packages you send, your exchange will be delayed and packages possibly lost.

This offer will hold good until Aug. 20 only and at that date we shall withdraw it entirely.

Send on your specimens at once in large or small quantities. It makes no difference to us whether you send \$1.00 or \$100.00 worth; but if less than \$1.00 worth, 10c extra must be enclosed for return postage and packing.

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Monthly.

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Vol. VI,

ALBION, N. Y., SEP., 1889.

No. 9

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

\$10.59 worth of Eggs, first-class with data, to exchange for Indian Relics. Wish to exchange all of them in one lot. Address Box 6, La Fayette, R. I.

I WANT LISTS, etc., printed. In exchange for first-class Birds' Eggs and Curiosities. Copying Pad also wanted. CHAS. TURTON, 1240 Flower St., Los Angeles, Cal.

WANTED.—A copy of Coues' Key or Ridgway's Manual. Will give in exchange Lossing's "Field Book of the Revolution" or other desirable works. Address, F. W. McCORMACK, Leighton, Ala.

TO EXCHANGE.—\$15 worth of Books in good condition. Including works by Kingston, Stephens and Ballantyne, for the best offer of first-class Eggs in original sets with data. CHAS. A. DAVIS, 169 E. 3rd St., Duluth, Minn.

WILL EXCHANGE.—First-class Birds' Eggs and two volumes of Audubon's Ornithological Biography, for common Pigeons. Good flying birds only. Send for particulars. P. M. LLOYD, 312 Church St., Poughkeepsie, N. Y.

TO EXCHANGE—I have about 250 varieties of N. American fresh water shells and 200 varieties of N. A. marine shells to exchange for N. A. species of moths and butterflies. A. K. FAIRCHILD, Whippany, N. J.

WANTED.—TO PURCHASE COLLECTIONS OF INDIAN RELICS AND OTHER CURIOSITIES FOR WHICH CASH WILL BE PAID. PARTIES HAVING SUCH FOR SALE WILL PLEASE CORRESPOND WITH W. H. KING, JACKSONVILLE, ILLS.

WANTED.—Good sets of Eastern Eggs in exchange for rare sets of Western species. Send lists and receive mine. Positively no eggs for sale. Address, A. M. SHIELDS, rooms 6 and 7 Bryson & Bonebrake Bld., Los Angeles, Cal.

EXCHANGE.—For \$7 worth of Eggs, single or in sets, I will give a Pearl handle, Hammerless, Self-cocking, 7-shot, Nickel-plated Revolver, 22 calb., value, \$10, and a 2x3x5 Dark Lantern, double reflector, Nickel plate, value \$2: both are new. Address, EDDIE A. FERRO, 110 Ontario St., Cohoes, N. Y.

FIRST-CLASS EGGS to exchange for Skins. Taxidermists' Tools and Supplies. Natural History Books and Self-inking Press, Type, etc. CHAS. TURTON, 1240 Flower St., Los Angeles, Cal.

FINE CALIFORNIA CURIOSITIES to exchange for First-class Birds' Eggs and Skins, Relics, etc. Send lists, and receive offers. CHAS. TURTON, 1240 Flower St., Los Angeles, Cal.

TO EXCHANGE.—First-class Birds' Eggs in sets or single, for eggs of the U. S. and Canada. Large eggs preferred. Address, E. K. COLLETT, 1400 Colorado St., Austin, Texas.

TO EXCHANGE.—Sets, with data, of 93, 260, 300, 326, 436, 498, 580, 594, 693, 737, 736 and a large number of singles, for eggs in sets. A good Violin for best offers in eggs or anything else. G. H. LOCKWOOD, Litchfield, Minn.

COLLECTORS, send me 25 cents in silver, and I will send you the following: 1 doz. Porcupine Hairs and Quills, also 1 Claw, a rare Coin, a Polished Agate and one in the rough and a first-class egg of 231b. With the first order I receive, I will give free an egg of the Amer. Barn Owl. I have also the following eggs for sale, all first-class, viz: 47 @ 5c.; 63a, 5c.; 183, 10c.; 182, 10c.; 204a, 5c.; 231b, 5c.; 240, 5c.; 274, 5c.; 170a, 2c.; 317, 5c. The first order received, amounting to over \$1, I will send free an egg of 420. No stamps taken. M. L. WICKS, JR., 1 S. Hill St., Los Angeles, Cal.

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PHOTO of your future Husband or Wife FREE! Send Stamp for Postage. CLIMAX CO. CHICAGO, ILL.

MORE ABOUT DAVIE'S CHECK LIST.

I have received Davie's Nests and Eggs of North American Birds, and am well pleased with it.

G. L., Hamilton, Ont.

Received Davie's Check List safely, and am well pleased with it.

T. S. B., Northfield, Minn.

Have just received 3rd edition of Davie's book. Very well pleased with it. I am sorry now I didn't get it in cloth, as such a book is valuable and will last longer if bound.

P. M., Philadelphia, Pa.

Nests and Eggs of N. A. Birds come to hand this P. M., and am more than satisfied with it; think it well worth the price. H. E. P., Perth Amboy, N. J.

Davie's Nests and Eggs of N. A. Birds received. Have looked it carefully over and must say that I cannot speak too highly of it. It should be in the hands of every oologist and ornithologist in North America. I would not sell mine, if I could not get another, for ten times its price. Will take great pleasure in recommending it to every collector I know.

T. L., Aptos, Cal.

I received Davie's Key to N. A. B. the 4th, and I would not be without one for twice its value. It is simply a beauty. F. S. B. N., Madison, Wis.



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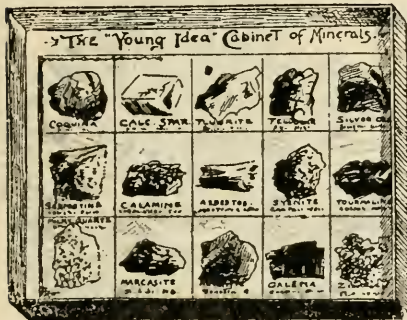
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THE OOLOGIST.

VOL. VI.

ALBION, N. Y., SEP., 1889.

NO. 9

"Old Abe," Jr.

In perusing number after number of the OOLOGIST I see so many things about Birds and Bird Pets that are interesting, that I am tempted to steal a few moments from my work in writing a small article in regard to "Our Pet (*Haliaetus Ledeocephalus*) Old Abe, Jr.," named in honor of the grand old bird carried through our late Civil War by the gallant 8th Wis. Inf. It may not be very interesting to some of my readers, to others it may be, as it fully shows (as I have had ample time to observe) the different changes of color which the Bald Eagle passes through, and from which so many controversies arise in regard to the many varieties of Eagles, such as Golden Eagle, Black Eagle, Gray Eagle, Bald Eagle, etc., etc., but which Dr. Elliott Cones settles very satisfactory in "New England Bird Life," page 133-4, vol. 2. From my note book I take the following record: Old Abe, jr., was shot on the Des Moines River, near Eddyville, Iowa, March 29, 1887, by one, J. Williams, a noted hunter of that place. His left wing was broken at elbow joint, and was amputated as soon as brought into town, from which operation he nearly bled to death. Two days later he had improved so much that he was purchased by the writer for the small sum of \$1. He was undoubtedly one year old at that time, as he was then a very dark gray with dark brown eyes and dark, horned-colored bill. Also gray through the season of '87, but several shades lighter by December, the same year. His bill and eyes have become much lighter, and his head almost white, but no signs of any white in his tail. The

This season, '89, his head has turned almost clear white, his eyes and bill

bright yellow, and at the present time he is moulting and white feathers begin to show in his tail. Think that next spring he will come out a *full fledged* Bald Eagle.

When I had had him about six weeks I arranged for a visit to Minnesota, and something must be done with Abe. So I built a strong lath fence, about 2 rods square to keep him in, put in shelter and perch. When I let him out of the big box he was in, I will never forget the look in his eyes. They just fairly sparkled, would look skyward, Oh, so longingly, then would make a break to go, and you can readily guess what the consequences were with one wing gone, or part of it. Several times he made the attempt, but all in vain; but those eyes said plainer than words, "Did I possess the whole earth, I would give it quickly to be possessed of my lost wing again." Well I thought to catch him and put him in the yard prepared for him, so took an old apron and thought to throw it over him and then grab him up, but if some of my readers had seen the outcome they would have laughed in spite of themselves. Quicker than a flash he was on his back and as the apron struck him, well, talk about old ladies tearing carpet rugs, they could have found them there in less time than it to tell it.

I then put a stick down to him which he instantly grabbed. I raised him up by this and put him over into the yard. While I was gone to Minnesota, he got out, and as boys sometimes say, "Took in the Town," and like to have got drowned in a rain-water barrel, but was helped out and made back home to the back corner of our lot where there is a big plum tree which has a leaning trunk, managed to climb to the top of it where he could take in the scenes,

and from that day to this that plum tree has been his home. But he has become so tame that he will take meat out of my wife's hand, she usually feeds him, and hangs around her like a cat or dog will around their master. I never saw one treacherous action about him, is gentle to everything, unless it be dogs or cats that sometimes try to steal his meat, then take care. Neither one has any business with him, and when they attempt to defraud him, the generally depart with more haste than dignity.

One more item showing the sagacity of birds as well as animals, and I will close this too lengthy article. Abe is a very clean bird and likes the bath tub every day, will splash and play in a tub of water equal to any duck or goose. One day he was given a dishpan of on the porch close to the door. There were strangers in the house who wanted to see him bathe, but of whom he was a little shy. He eyed the pan of water for a while, then carefully approached and grabbed the handle one side of the pan with one of those mighty claws, and literally dragged that pan of water away to what he thought a safer distance, then took his regular bath plumed and dried himself, and then returned to his plum tree where he now sits monarch of all he surveys. I have always been a great lover of pets and have had many, but not one to whom wife, children and all were so attached they would all rather go without meat than to see Abe go hungry.

R. D. Goss,
New Sharon, Iowa.

A Day's Collecting Trip.

I agree with your correspondent, J. C. W., in the December OOLOGIST, that no collecting affords more real, solid enjoyment than searching for the nests of water birds. I will endeavor to tell the readers of the OOLOGIST of a pleas-

ant trip which I made on the 30th of May. I left home and arrived at a slough back of the gun club grounds, about 9 a. m. This slough was surrounded by a meadow. I had not proceeded over one hundred feet when a bird flushed almost under my feet. A glance told me that it was a Blue-winged Teal. I looked down and there was the nest. It was nothing but a "hole in the ground," lined with down, and contained twelve eggs. Rather a large set as Davie says 6 to 10. My next find was an uncompleted set of two Long-billed Marsh Wren's eggs. The nest was made by bending down the surrounding grasses and weaving other grasses through them, making a globular structure with the entrance on the side. Within ten feet of this nest I found a set of 11 Sora Rails eggs. Last year this bird was very common and I could have taken 500 of their eggs, but the above set is the only one I found this year. I next found a lot of common eggs which I did not take, such as Red-winged Blackbirds, Yellow-headed Blackbirds, Yellow Warblers, etc. I then started for another lake and on the way a farm boy showed me a set of three Least Bittern's eggs. The incubation was one-fourth advanced. He also gave me a set of six Virginia Rail's eggs for a sling shot. I now sat down and ate my lunch, when I saw a bird fly to a birch tree near the water. I went and investigated the matter and the result was 4 badly incubated eggs of Yellow-bellied Woodpecker. I now started for a lake where I had heard that Black Terns bred. Upon reaching it a cloud of them came over my head uttering their shrill cries. I waded in and found five sets of three and one set of two. The nest was nothing but a pile of grasses with a slight depression on which the eggs were deposited. In all cases the nests were floating. While collecting these I found three sets of Pied-billed Grebes—two sets of seven

and one set of nine. The nests were nothing but a pile of floating, decaying weeds. The birds do not incubate the eggs during the day but cover them with weeds, so it is not possible to see the eggs before removing the covering. As it was now getting late I started across lots for home. In going through a wheat field I found a set of five field sparrows's eggs. Shortly after this I reached the club grounds. In front of the traps is a pile of straw to prevent any of the clay birds from breaking that are not hit. I was stooping down to pick up a perfect bird when, lo! there on there on the straw was a nest containing three Horned Lark's eggs. Truly a queer place for a bird to build, when twice a week the sportsmen assemble to shoot. W. J. L. B.,

Minneapolis, Minn.

Bell's Vireo.

I have made a special study this season of this interesting member of our *avi-fauna*, by no means an uncommon bird. I have had abundant opportunity for observing its habits. Its usual nesting place is in a hedge or in a plum thicket. The nest is usually placed within three feet of the ground, but I have seen one nest, built no doubt, by an eccentric pair of Vireos, which was at least six feet from the ground. I have found nests in hedge, on small plum trees, on sumachs, apple trees, in fact the nest may be looked for in almost any small tree or bush where the foliage is dense enough to conceal it from above. The eggs are always four in number, except when a cowbird deposits an egg in the nest; then only three eggs are laid. If, however the cowbird should lay an egg before the second Vireo's egg is laid, the Vireo will desert the nest. The eggs are usually white, speckled sparingly with brown or reddish brown spots; however I have found nests in which part of the

eggs were spotted as usual, the rest being pure white, unspotted.

I found one nest containing three Vireo's eggs, and returning that way in a few days, was somewhat surprised to find the Vireo's eggs gone, and in their place a fresh Cowbird's egg.

Query: Did the Vireo remove the eggs to another nest or were they destroyed? Has there ever been an authenticated report of a bird removing its eggs from one nest to another?

There were no shells about or other evidence of the eggs being destroyed, and I am quite sure that no other collector had any knowledge of the nest.

During the nesting season the familiar song of the male is heard, generally within ten feet of the nest; but as any person approaches, the bird gradually flies away from the nest, stopping anon to repeat its song, (?) which, by the way, when once heard, can never be forgotten. It somewhat resembles a Black-throated Bunting's notes, but the harshness in the Bunting's is softened in the Vireo's. The notes slightly resemble *Cheed-a-leed-a-leed-a-lec-e* with the last notes very high.

When the nest is discovered the female noiselessly steals away, unless the nest is disturbed or contains young when she will begin chattering, which is not unlike that of a wren.

ALBERT O. GARRETTE,

Et. Scott, Kansas.

Additions to the *Ari-Fanna* of Orleans County.

Since the *Avi-Fauna* of Orleans County was published in the May OOLOGIST, the following additions have been reported.

175. *Nyctherodius violaceus*. White-crowned Night Heron.

176. *Plegadis falcinellus*. Glossy Ibis. A specimen of this bird, shot in Towanda Swamp, was brought to Mr. Hedley in May, 1889. It is a straggler.

Respectfully, NEIL F. POSSON.

The Black Tern.

This a very common species throughout the states of Wisconsin, Michigan, Illinois, Minnesota and Dakota. This bird is sometimes called the Short-tailed Tern, but is more commonly known as the Black Tern. These birds have large wings in proportion to the size of the bird, and when it is on the wing it looks not unlike a large swallow. These birds nest in quite large colonies, but they do not increase very rapidly each year because there are too many oologists collecting their eggs. There is one thing quite singular about this bird. This is: If you collect a set of their eggs one day, you can go to the same nest two or three days afterward and you will find just as many eggs in the nest as there were the previous day. This bird arrives in Wisconsin about the first of May, and begins incubation about the first of June. It does not have to work as hard as some birds do to build its nest. It simply finds a suitable mud flat. (floating on the water.) and lays a few reeds and grasses around on the mud to keep the eggs from rolling about. The eggs, which are of a greenish color, thickly blotched with brown and lilac, are then laid in this nest. After the eggs have been laid incubation sets in, and continues for about three weeks, when the young appear. These are fed on worms and snails until they are able to take care of themselves. Then another set of eggs is deposited in the same nest and another brood is reared in like manner. I collected a set of three eggs of this species June 6. 1889. Incubation advanced. They measured as follows: $\frac{1}{3}$ 1.46x1.00, $\frac{2}{3}$ 1.46x.98, 3-3 1.35x1.00. This set resembled very much, both in color and in markings, those of the Spotted Sandpiper. In blowing these eggs one has to be very careful so as not to destroy the bloom. These birds as a rule are very fond of low, marshy

lakes for their haunts. They go farther South when it begins to show signs of winter. I will close now hoping this article will be of some benefit to the readers of THE OOLOGIST.

F. S. N.

Madison, Wis.

The Yellow-rumped Warbler.

While rambling through the swamps in the vicinity of Highland Park on June 1, '89, I came unexpectedly upon a nest of the Golden-crowned or Yellow-rumped Warbler, situated in the crotch of a small hemlock tree about ten feet from the ground. I would undoubtedly have passed it, as it was in a place one would not think of looking for a nest, but the old bird, frightened by my approach, flew off and thus attracted my attention.

I had some difficulty in climbing, as the tree was very slender and easily bent, but by the aid of a neighboring tree I finally succeeded in reaching the nest, which I held in my teeth until I reached the ground. There in a soft-warm bed of thistle down lay four small eggs. They were of a creamy-white color, covered sparsely with spots and blotches of different shades of reddish-brown, thickest at the largest end of the egg. Dimensions of the eggs, $\frac{1}{3}$.68x.50 inch, $\frac{2}{3}$.67x.50 inch, $\frac{3}{4}$.66x.49 inch, $\frac{4}{4}$.65x.49 inch. The nest was a small structure, firm and compact, the outer parts formed of silky fibers from different plants, attached to the twigs near it by means of glutinous matter, mixed with the inner bark of the wild grapevine, within this is a deep and warm bed of thistle-down and the inner layer composed of feathers and the fine hair of small quadrupeds.

H. C. A.

Detroit, Mich.

Nesting of the Cuckoo.

Since I became a subscriber to the OOLOGIST I have become more deeply interested in the study of birds and their habits, especially through the nesting season. The soil and climate, the hills and valleys of Vermont, afford a most excellent place for the nesting and breeding of our feathered tribes. On the 25th day of May, '89, I started out for a two hour's walk, thinking, perhaps, I might find something of interest to add to my collection. I followed a small stream for 20 or 30 rods, closely examining the clumps of willows and alders as I passed and presently saw a cuckoo sitting on her nest, about three rods in advance. I approached the nest as cautiously as possible so as to obtain a good view of the bird before she flew. There were three greenish-blue eggs of uniform size and color and of the same size at both ends. The nest was placed in a clump of alders about three feet from the ground and was composed of dry twigs, leaves and fibres. It was $4\frac{1}{2}$ inches in diameter, with only $\frac{3}{4}$ of an inch depression. On blowing two of the eggs were perfectly fresh, while the embryo in the third was at least one-third developed, an incident I have never met with before. Can any one give an explanation?

S. C. WHEELER,

Waterbury Centre, Vt.

[A very common occurrence with the Cuckoos.—Ed.]

A Nest of the American Woodcock

The American Woodcock, one of our game birds, is becoming very scarce in this locality, South Eastern Pennsylvania, and their nests are very hard to find. While out collecting the 20th day of April, last spring, '89, I took my first set. They arrive here the latter part of March and from three to four weeks

later they are nesting. I was crossing a low wet piece of woods and had just jumped across a little stream when I flushed a bird very close to my feet. Not seeing any nest, and knowing something of the habit of this bird, I stood in my tracks and watched the retreating form of that bird. She flew but a short distance and dropped into a patch of ferns out of sight. I then glanced around me and by close looking soon discovered the nest. It was simply a little hollow in a raised bunch of leaves, about four inches in diameter. It contained four eggs—beauties. Eggs that would fill most collectors with a thrill of delight. The ground color was buff, spotted and blotched with shades of brown about the larger end. They measured 1.40 x 1.25, and were perfectly fresh.

J. P. J.,

Kelton, Pa.

Murderous Sparrows.

One morning in early spring, as I was sitting under an apple tree in my back yard, I noticed a number of sparrows flying about a tree in which a blue-bird had taken up her abode four or five weeks previous. Her young were almost ready to leave the nest, when the sparrows determined to hasten matters. I soon perceived that a portion of the sparrows attracted the attention of parent blue-birds, while the rest employed themselves in ousting the young birds from the nest, and in this they succeeded before I could interfere. After replacing them I was called away, and on returning found that a tragedy had been enacted in my absence. The young birds being again thrown from the nest, and this time speedily devoured by the family cat.

The old blue-birds soon after left the vicinity, and the sparrows took possession of the deserted home.

C. R.

Cleveland, Ohio.

An Automatic Blower—Interesting Oological Items.

I have used a plan of blowing eggs with complete success for several years, and as I have not seen anything like it described, I will give a description of it for the benefit of those who still use the old method, viz.: Blowing the air through the mouth. It is simply this: Get a small rubber bulb, such as are used on small syringes, etc., and insert the blowpipe in this and it is ready for use. All you have to do is to compress the bulb and the air is forced through the blowpipe. The bulb I use is one I got from a Goodyear improved atomizer No. 6. It has an air valve in one end. This is an advantage in one respect as it does not suck anything up through the blow pipe. But for rinsing eggs it does not come so handy, as it will not suck up water unless the air valve is stopped. This is easily done by placing your finger over the air hole. A rubber ball will do but is not so good as an oval bulb, as compressing the ball will move the blow pipe upwards while in the other the pipe remains stationary. I think I can blow eggs in one-fourth the time I could by the old way and I very seldom break one. This makes blowing eggs a pleasure where it was to me, before I got on to this scheme, one of the dreaded jobs of collecting. To come home from a collecting trip with say 30 or 40 eggs and to have to twist your neck out of shape to blow what little wind there is left in you after a hard day's tramp through a small blow pipe and probably have the contents of a "checked" egg squirt in your face, or by mistake suck it up in your mouth, is, to say the least, anything but pleasant work for me, and by using the above plan it is entirely unnecessary.

The best way I have found to dry eggs, is to hold them hole down near a lighted lamp. This will immedi-

ately force all remaining moisture out of the hole and will not injure the egg in the least. I think it a good plan to rinse all eggs, fresh or otherwise.

I found a small net, made by bending a piece of wire in a circle about six inches across and fastening cloth to to this so it would form a bag, fasten this to a pole about 10 feet long, a great convenience in getting a set of Hawk's eggs that were on a leaning limb.

I have taken twelve sets of Red-tailed Hawk's eggs this spring. I find that the complete sets invariably have 3 eggs in this locality. I never found but one complete set that had less than 3 and never found one that had more than 3.

I hope some one will try my method of blowing eggs and report what success he has. G. H. LOCKWOOD.

Flight of Ducks.

I have held my watch on several kinds of Ducks and Geese. But the main part comes from old gunners who have favored me with their experience. The Canvas Back can distance the whole Duck family. When this duck takes it easy it makes 80 miles an hour. But if it has some business somewhere, it leaves back of it 2 miles a minute, and does it easily. If you don't believe it just fire at the leader of a string of Canvas Backs that are out on business. Duck shot travels pretty fast, but if you happen to hit one you see if it isn't the fifth or sixth one back of the drake or leader. A drake does not always lead, but it generally does if there is one in the flock. If there is more they will seldom lead. If you wish to bring down the leader you must aim at a space about 8 feet ahead of him, and then if he falls you will line a long distance off. The Mallard is a slow one. It is all he can do to make a mile a minute, but he can if he wants to. His regular rate is about 40 miles an hour.

The Black Duck is a slow coach. He is about as good as the Mallard, and the Wood Duck and Pintail, Widgeon cannot do any better. The Red Head can go easily 90 miles an hour as long as he likes; all day if necessary. The Blue-winged Teal and its beautiful cousin, the Green-winged Teal can fly side by side and make 100 miles per hour and take it easy. The Gadwall, you see them here very seldom, though well known west of the Allegheny river and as Kishamook, though looking like the Mallard, is a smarter duck and harder to shoot. It can make 90 miles an hour and not try hard.

Maybe you think a goose can't fly fast. Why, it can double the speed of the fastest railroad train. Of course I mean a wild goose. It can get from feeding ground to feeding ground so suddenly that it fools some of our best wing shots. If you see a flock of Honkers moving along so high that they seem to scrape their backs to the sky you wouldn't think they were making nearly 100 miles per hour, but they are. The wild goose is not much on foot, but it still means business every time. The Broad-billed goose comes next to the Canvass Back in speed. Put the two together and in an hour the Broad-billed Goose will only be 10 miles behind the Canvass Back.

The fastest railroad train cannot hold a candle by the side of the slowest duck that flies.

This information comes from correspondence of life-long gunners. And gunners will tell you that I have hit the mark pretty close.

A. W. NOLTE,
Los Angeles, Cal.

The White-eyed or Florida Towhee.

Having never noticed anything about this bird, I thought I would tell what I know about them. To begin with, plumage. Male, head and neck to point of breast jet black; breast and belly

greyish white; sides and under tail reddish brown; back edge of tail when spread white; back and top of tail blackish brown.

Female, plumage same as male, except head and neck, chestnut brown. Both birds have a narrow bar of white on each wing, which looks like a small patch when the wing is closed; also a small crest which is raised and lowered at will. So far for description. Not very scientific to say the least.

The Towhee whistles a few notes, the most frequent of which is "Jo-ree, Jo-ree" uttered as it jumps about on the ground. It frequents low scrub land and palmetto patches, where it is very abundant. It has a peculiar way of scratching with both feet and makes so much fuss that I have often, while out hunting, got down on my knees to look in the brush, expecting to see some large, only to see a "Jo-ree" scratching away for "dear life," and making the leaves fly in every direction.

Though the bird is so plentiful, I have never found a nest and can not tell anything about its nesting habits.

WILLARD ELIOT,
Thonotosassa, Fla.

A Peculiar Nesting Site.

While out fishing with some friends I sat down on a rotten stump and began to push it over. At that moment a Black-capped Chickadee flew out of a hole near the bottom of the stump. I looked in and to my surprise I saw six eggs. The hole was about three inches above the ground and nest two inches below the surface. Upon examining the eggs they were found to be as peculiar as the site of the nest, being larger than usual and were covered with blotches instead of spots of brown.

Thus I found my first underground Chickadee's nest.

C. V. Wheeler,
Chesterville, Me.

THE OOLOGIST

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—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and items of interest to the student of Birds, their Nests and Eggs, solicited from all.

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Pigmy Owl.

In reply to the query of A. Calderwood Jr., in June OOLOGIST, concerning the number of eggs laid by the Pigmy Owl, I offer the following:

Mr. Charles F. Morrison, in the "Ornithologist and Oologist" for May, 1889, mentions finding a nest of this species containing four young.

Capt. Charles E. Bendire, in his excellent article on the "Habits of the Genus *Glaucidium*," in the "Auk" for October, 1888, speaks of the discovery of two nests; one with three eggs, the other with four young. He further says, the number of eggs to a set is probably never more than four.

The above information is all that is at my command. These eggs are with-

out doubt, exceedingly rare, and Mr. Calderwood is to be congratulated on such a desirable find.

HARRY C. OBERHOLSER,

Red Bank, N. J.

Nesting of Trail's Flycatcher.

All of the nests of this bird that I have found and examined, were placed in willow bushes situated in low swampy land, and the nests were usually placed about 6 feet from the ground. In some instances the nests are rather slovenly built on the outside but much neater inside. But this is not always the case, for this year, '89, I found one that I would call a beautiful structure. It was situated in the upright forks of a willow bush $5\frac{1}{2}$ feet from the ground. It was composed of fibrous strips of weeds, fine grass and bits of soft downy material from different plants, and lined with fine grass. The dimensions of the nest are as follows: Diameter, outside $2\frac{1}{2}$ in., inside $1\frac{1}{2}$ in. Depth, outside 3 in., inside $1\frac{1}{2}$ in. This nest contained four eggs of a light buff or creamy color, spotted very sparingly with reddish-brown, and average about 68x50.

W. C. M.

Columbus, Ohio.

My long looked for Davie's Egg Check List has arrived. It is a valuable work. C. E. C., Davenport, Ia.

Cooper's Hawk.

Accipiter Cooperi (Bonap.)

Tyrant of the barnyard fowls and terror of all the smaller feathered tribes, this bird bears an unenviable reputation. He makes himself especially obnoxious to the farmer and poultry fancier, and by his increasing attentions to the nicest, fattest young ducks and chickens, he has given a "bad name" to the whole *Falconidae* family, which can never be erased from the minds of a certain class of people, to whose pre-

judiced comprehension a "hawk," no matter to what genus it belongs, is the typical representation of rapacious plunder.

For reckless pluck and dash the rather small, trimly built genus *Accipiter* is rivaled by few and surpassed by none of the feathered race, with the exception perhaps of the family *Tyrannidae*. Of the three birds comprising the genus *Accipiter*, *A. cooperi* is the only one which remains in this locality, north-eastern Kansas, throughout the year, *A. velox* and *A. atricapillus* being merely irregular winter visitants. The wings of the Cooper's Hawk are quite small for the size of the bird, though what they lack in size is made up by their muscular vigor. Thus the bird is rendered incapable of great soaring feats or long extended flights, but its rapid movements and quick, arrow-like dashes are so well known that it has acquired the popular name of "dart hawk."

In taking a stroll through some lonely piece of woods on a winter's morning, one may often see the Dart Hawk rapidly skimming along, just above the ground, or seated on some secluded tree, partially stupefied by an overfeed of fresh quail, upon which it feeds almost exclusively, during cold weather. As spring gradually opens the leaf buds and brings its swarms of feathered songsters from the South, *A. Cooperi* and his consort, begin to search for a suitable nesting site. The spot usually chosen is an old crow's nest, located in some secluded nook of the woods, farthest from the habitation of man. The nest is merely a few coarse sticks and strips of bark laid on top of some old deserted nest of some other bird, or if it builds a nest for itself it closely resembles a flat-topped Crow's nest. This bird does not build in such lofty positions as do many of our hawks. I have never found a nest over thirty feet from the ground, and in one instance I took a set of two eggs from a nest but

fifteen feet up. It usually begins to lay about the first of May and lays one egg daily until the set is complete. Good authorities give the number of eggs layed as four or five. I have been unfortunate in getting small sets, for I never took more than two eggs from a nest, and sometimes but one.

The eggs, oval in form, vary considerably in size, averaging about 1.85x1.47. Smallest, 1.74x1.43; largest, 1.85x1.48. Are usually unspotted, light-blue in color. I once took a set that was sparsely marked over the entire surface with sharp specks of reddish-brown. Incubation begins when the set is complete, and lasts about three weeks. From the time the young appear until they leave the nest, June 1st to July 1st, is the period in which the farmer meets with his greatest losses by this bird. During this time the young are fed almost exclusively on young poultry and young birds picked up in the woods. After leaving the nest the young are fed for a few weeks by the parents who gradually become less bold, and when at last they leave them to their fate, usually the shot-gun, the old birds seem to entirely disappear until fall, when they become as plentiful as ever, but are much shyer than in the spring. They show the greatest bravery in the defense of their nest and young. On several occasions while rifling their nests, I have been struck severe blows on the head and back. Both birds take part in these attacks, continuously uttering their rapidly repeated cry of "kute, kute, kute," which closely resembles the live of the Red-bellied Woodpecker (*Melanerpes carolinus*.)

Although outlawed by the human race, the reckless bravery of *A. Cooperi* ought at least to entitle him to respect in spite of his numerous shortcomings.

D. B. R.,

Beattie, Kan.

Houses to Let.

If any one wishes to receive large dividend on a small investment I would advise them to put up a few bird houses around the house or grounds. They will readily find reliable tenants who will repay all trouble. It will interest any one whether ornithologist or not, to watch the birds at their mating and nesting. If there had been more of these conveniences provided for our native birds there would have been no excuse for the importation of that "pesky varmint," the English Sparrow. I believe that all of our birds that breed in boxes are purely insectivorous, and hence of great value to the farmer, gardener and orchardist. The martin will also serve the poultry keeper a good turn by driving away depredating crows and hawks. The blue-birds and wrens will give us fine songs besides destroying many insects. In the past two years the following birds have visited some bird houses which were put up around the house: Bluebirds, Wrens, English Sparrows, Gt. Crested Flycatcher and Purple Martins. Now if this reaches you too late for this season, remember it and spend some stormy day next winter in making a few houses to let, it is far more profitable than building castles in the air.

A. B. F.,
Benning, D. C.

A Day on Shelter Island.

Never reading anything about collecting in my locality, I will write a small account of my first specimens taken this year. On the morning of May 1, 1889, I started for the eastern shores of Shelter Island to see how the Kingfishers and Ospreys were building. After walking about three miles, I saw a new Kingfishers hole in the bank and started up the bank for it, arriving at the top. I measured the length of the hole by

thrusting a long stick into it, taking the length also the direction, then laying the stick on the top of the bank and taking the directions, I began to dig. I was rewarded with a set of four eggs. During my walk I met a friend on the same expedition as myself. Together that morning, we were rewarded with five sets of Belted Kingfisher as follows: 1-4, 1-6, 2-6, 2-5, 3-7 also two beautiful sets of American Osprey of three eggs each. On our way home, we each collected a set of Bluebird's and Crow's.

A. E. PAYNE,
Greenport, L. I.

A Curious Nesting Place.

Walking one afternoon, with a friend along a railroad track, he surprised me by saying that in a few feet of me was a Bluebird's nest. As I am always interested in anything of that sort. I at once began an earnest but vain search. At last my companion had to help me out by pointing out the nest securely fastened in one of the wheels of a by-standing car! The bird had chosen one of the holes around the axle for a building place and when I found the nest there were already two eggs in it.

R. C. M., Columbia, S. C.

Unusual Occurences.

Have any of the readers of the OOLOGIST ever found a set of Mourning Dove containing three eggs? I found a set of three placed in a frail nest in an evergreen tree. One egg was the usual size, and the other two were some what smaller. This is the first time that I know of that three eggs were found. Perhaps some of the readers of the OOLOGIST have also had a find of the same kind. Also found a set of Robins', with two pure white eggs and two the usual color.

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— OF —

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The copy of Davie's Check List received a few days ago. Since then I have been perusing it and am greatly pleased with it. It is the "biggest little" work I have ever seen.

J. A. B., Morganton, N. C.

I enclose you six c (.06) for which please mail me a copy of August OOLOGIST. I had my number, but it was lost on the way from the post-office, and I cannot possibly miss a number, for it is invaluable to all real lovers of Ornithology. I would pay a dollar per year rather than not have it. Davie's Key is a perfect gem. If you can't supply the August number please send me a number prior to June, 1888, and oblige.

W. E. S., Beaver Dam, Wis.

I have just received Davie's Nests and Eggs and am very much pleased with it, and think that it is just what I need.

J. B. S., Clinton, N. Y.

I have looked the book over some and am very much pleased with it, and consider it a good work for the price.

W. A. M., Norwalk, O.

Davie's 3d Edition came to hand Aug. 6. I am certainly much pleased with it and it far exceeds my expectations.

C. W. L., Staunton, Va.

I received Davie's work yesterday and am much pleased. To the working Oologist it is the most valuable work I remember having seen.

W. C. C., Ann Arbor, Mich.

Allow me to express my entire satisfaction with the book, Nests and Eggs of North American Birds, by Oliver Davie. It is a first-class work in every particular, and is just what every oologist should have, and would recommend it to all who are interested in oology. It is the best book for the price ever published.

B. F. S., Brooks, Maine.

I received Davie's Nests and Eggs a few days ago and I am very much pleased with it. It is worth twice the amount you ask for it.

T. B. K., Talbotton, Ga.

Cloth bound edition of Davie's Nests and Eggs just received. I knew it would be more valuable to the oologist than the second edition, but it far surpasses my expectations. I would not be without it for many times its cost.

J. W. J., Glenwood, Pittsburgh, Pa.

The third edition of The Nests and Eggs of North American Birds came duly at hand and I beg leave to acknowledge its receipt and to also add a few words of praise for the book. It is, truly, a valuable work, and should be in the hands of every person interested in oology. Although I have scanned its pages hurriedly, I am satisfied that it contains *new information* and plenty of it, and that is what we all want. Its sale should be unprecedented as the price is within the reach of all.

C. L. K., Salem, Oregon.

Please accept my thanks for Davie's Nests and Eggs of N. A. Birds. It far surpassed my most sanguine expectations. It is worth many times the price I paid for it. Will recommend it to all my friends who have an oological turn.

W. D. R., Fredericksburg, Va.

Received the trays and Davie's Key to North American Eggs and Birds. Everything was all right; am much pleased with the book.

D. W. R., Norwalk, Ct.

Davie's Key received; is a great deal better than I expected it to be, in fact I would not exchange my volume for any \$5.00 work on ornithology or oology published. Surely those that ordered in advance could not have spent \$1.00 more profitably. The type is clear and engravings as real as Nature. I ordered my volume last September, and many told me I would never receive it, but I simply said, I was acquainted with your reliability, and waited, and now I have a work worth \$5.00 before me.

W. E. S., Beaver Dam, Wis.

Davie's Nests and eggs of North American Birds just received; am highly pleased with it. Feel well paid for having waited so long for the book.

E. J. B., Medina, N. Y.

Received my book of Nests and Eggs of N. A. Birds to-day and think it the best book of its kind I have seen for that sum of money and well worth the time I have waited.

W. L., Peoria, Ill.

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Some twenty years ago the author decided to write a work on birds, and in order to gather material for this purpose, began a series of explorations to various sections of Eastern North America, between the gulfs of St. Lawrence and Mexico, during which some sixteen thousand birds were collected. All of these underwent a close examination, their peculiarities were observed and recorded, and many were dissected and drawings made of the anatomical structure; while careful measurements were taken of nearly all of them. During all this time, notes were being written from observations upon the nesting and other habits of the various species.

Not only were the land birds carefully studied, but special attention was also given to the aquatic species, and many large breeding grounds on the Florida Keys, along the coast and in the Gulf of St. Lawrence, were visited and thoroughly explored. No time or expense has been spared in accumulating material for the work, for the expeditions undertaken for this purpose were necessarily expensive, as the author was obliged to employ many assistants, and thousands of dollars were expended in this way.

THE CHARACTER OF THE WORK.

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Monthly.

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Vol. VI,

ALBION, N. Y., OCT., 1889.

No. 10

Exchanges and Wants.

Brief special announcements. "Wants," "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

Through my exchange notice in the OöLOGIST I received over 50 letters, and did exchanging to the value of over \$175.00, adding nearly 100 sets to my collection, some very rare. Hoping success to you and the OöLOGIST, I remain H. Y. BENEDICT, South Prairie, Tex.

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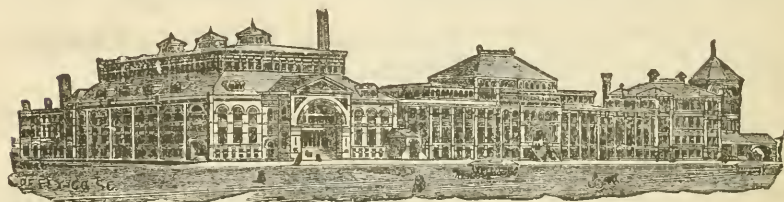
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THE OOLOGIST.

VOL. VI.

ALBION, N. Y., OCT., 1889.

NO. 10

List of the Winter Birds Found in Kalamazoo County, Mich.

(BY SCOLOPAX.)

For about twenty years I have carefully recorded the birds to be found or occasionally seen in my native county. This list, from its thoroughness I think, is now sufficiently complete to publish, and although I do not consider it as perfect, it will, I believe, not be much increased for some time to come.

I embrace here permanent residents, those species that live within our boundaries summer and winter, and are always to be found. Second, winter visitants, those birds which arrive from the North and either remain with us during the winter months, or pass through our territory going or coming to or from the South either during December, January or February. Third, half-hardy, those species which remain with us during mild winter or occur during late January and February, or leave us not till after the first of December.

PERMANENT RESIDENTS.

1. *Parus atricapillus*, Chickadee. Abundant at all season of the year.
2. *Sitta carolinensis*, White-bellied Nuthatch. Common all the season.
3. *Cyanocitta cristata*, Blue Jay. An abundant length resident.
4. *Picus villosus*, Hairy Woodpecker. Abundant resident in some cases. Mostly go North in spring.
5. *Picus pubescens*, Downy Woodpecker. Abundant during winter and a few remain during summer.
6. *Hyplotomus pileatus*, Black or Pileated Woodpecker. A rare species Occasionally seen in winter, more rarely in summer. This species was once a resident but may now better be styled an accidental visitant.
7. *Asio americanus*, American

Long-eared Owl. Not a very rare species in some tamarack woods.

8. *Strix nebulosa*, Barred Owl. An abundant species. Found every month in the year.

9. *Nyctale acadica*, Sawwhet Owl. A rare resident.

10. *Scops asio*, Screech or Motiled Owl. Not a rare species.

11. *Bubo virginianus*, Great Horned Owl. Our most abundant resident resident of the Owls.

12. *Meleagris gallopavo*, Wild Turkey. Now a rare resident. Once abundant.

13. *Bonasa umbellus*, Ruffed Grouse. A common resident still.

14*. *Bonasa umbellus umbelloides*, Gray Ruffed Grouse. A rare resident. Perhaps a straggler from the north, as they are not observed every season.

15. *Cupidonia cupido*, Prairie Hen. A rare resident. Greatly thinned the last twenty years.

26. *Oryz virginiana*, Bolwhite; Colin; Quail. Not a sure resident.

WINTER VISITANTS.

17. *Lanius borealis*, Northern shrike. An uncertain sojourner from the north. Often goes further south almost proving it to be half hardy.

18. *Ampelis garrulus*, Northern Waxwing. A rare and uneasy migrant, occasionally appearing here from the north. Only once visited Kalamazoo County to my knowledge.

19. *Pinicola enucleator*, Pine Grosbeak. A rare and uncertain visitant.

20. *Loxia curvirostra americana*, American Crossbill. Not rare some winters, usually appear in December,

*What I have called *B. umbelloides* may be only a peculiarity in coloration of the commoner form. Have seen none of late and may be mistaken.

and again in February, and occasionally stays until May.

21. *Loxia leucoptera*. White-winged Crossbill. A rarer species from the North. Never numerous.

22. *Aegiothus linaria*. Lesser Redpoll. A common irregular visitant.

23. *Aegiothus linaria holbolli*. Greater Redpoll. Taken once in winter of 1878 by F. H. Chapin, Esq.

24. *Chrysomitris pinus*. Pine Linnet. Occasionally seen during early or late winter.

25. *Plectrophanes nivalis*. Snow Bunting. Occasionally seen the entire winter. Generally passes through early and late winter.

26. *Spizella montana*. Tree Sparrow. Not rare in winter. Usually seen in December and February.

27. *Junco hyemalis*. Snow Bird. Abundant December and February. Often seen during entire winter.

28. *Nyctea scandiaca*. Snowy or White Owl. A rare and occasional winter visitant.

29. *Astur atricapillus*. Goshawk. A rare winter visitant.

30. *Archibuteo lagopus sancti-johannis*. American Rough-legged Hawk. An occasional winter visitant from the North. Being observed in December and late in February.

31. *Bernicla canadensis*. Canada Goose. Occasionally seen early December and late February.

32. *Changula glaucium Americana*. American Golden-eye. Not rarely observed in open spots or river in December and February, and occasionally remain all winter.

33. *Harelda glacialis*. Old Squaw. A rare winter visitor.

□ 34. *Mergus merganser americanus*. American Sheldrake. Gosander. Not a rare visitant from the North. Usually seen in December and February, but occasionally seen throughout the winter in open places on river.

35. *Larus argentatus smithsonianus*.

American Herring Gull. Observed January 8th, 1887. Two in a flock. Rare at this time of year. Often seen in February before ice goes off of lakes.

36. *Colymbus septentrionalis*. Red-throated Diver. An occasional winter resident from the North. Occupies open spots on the river.

HALF-HARDY.

37. *Merula migratoria*. Robin. Occasionally found throughout the winter. Nearly always appear from the middle to the last of February.

38. *Sialia sialis*. Bluebird. I have one arrival February 8th. Not rarely seen by February 25th.

39. *Regulus satrapa*. Golden-crowned Kinglet. Many remain in the county during mild winter. Occasionally observed in February in dense swamps.

40. *Sitta canadensis*. Red-bellied Nuthatch. Occurs as a visitant for a short time season in December or late February when to or from the South.

41. *Certhia familiaris rufa*. Brown Creeper. Occasionally remain throughout the winter, and during the severest weather, again does not appear until February from the South.

42. *Lanius ludovicianus excubitorids*. White-rumped Shrike. Rarely occurs from the South during latter February.

43. *Ampelis cedrorum*. Cedar Bird. Abundant as rule during winter, but sometimes not seen till March.

44. *Astragalinus tristis*. American Goldfinch. A common resident occasionally. Often not seen in winter.

45. *Melospiza fasciata*. Song Sparrow. Have seen it in December and as early as February 22d.

46. *Agelaius phoeniceus*. Red-winged Blackbird. Once observed as early as February 8th. Not rarely by the latter part of the month.

47. *Quiscalus purpureus*. Purple Grackle. Observed once February 28th, and had he remained away one day longer would not have been honored as

an early arrival, and a winter bird in this article.

48. *Corvus fringillorivus*. Crow. Usually remain throughout winter, if not, appear latter part of February.

49. *Eremophila alpestris*. Shore Lark. Common some winters but more often seen in December and February than in January.

50. *Centurus carolinus*. Red-bellied Woodpecker. Usually remain during our winter, but not always.

51. *Melanerpes erythrocephalus*. Red-headed Woodpecker. A rare winter resident, occurs one year in ten.

52. *Colaptes auratus*. Golden-winged Woodpecker. Have been reported every month of the twelve, but rarely appear before February 20th.

53. *Ceryle alcyon*. Kingfisher. Occasionally seen by February 20th in early season. Not rarely seen in early December.

54. *Asio accipitrinus*. Short-eared Owl. Taken January 16, 1887, the first winter record to my knowledge.

55. *Circus hudsonius*. Marsh Hawk. Occasionally seen in December. Sometimes appear from South in February.

56. *Accipiter Cooperi*. Cooper's Hawk. Observed once in January.

57. *Accipiter fuscus*. Sharp-shinned Hawk. Shot Dec. 3, 1886 in the city of Kalamazoo.

58. *Buteo borealis*. Red-tailed Hawk. Occasionally arrives by February 20th. Sometimes observed in December.

59. *Buteo lineatus*. Red-shouldered Hawk. Rarely observed in winter.

60. *Ectopistes migratoria*. Passenger Pigeon. Occasionally arrived in late February. No more immense flocks, and only a few scattered pairs are ever seen now.

61. *Zenaidura macroura*. Mourning Dove. Rarely taken in winter. Accidental straggler.

62. *Oryzopsis vociferans*. Killdeer. Occasionally arrives by February 20th in open winters

63. *Philohela minor*. Woodcock. A rare species in winter. Has been observed during each of the winter months.

64. *Gallinago media Wilsoni*. Wilson Snipe. This species is not rarely taken in late February. It has been observed in January.

65. *Anas boschas*. Mallard. Occasionally remain until Christmas.

66. *Aix sponsa*. Wood Duck. In open seasons arrive in late February.

67. *Podilymbus podiceps*. Common Grebe. An occasional arrival as early as late February.

68. *Colymbus torquatus*. Common Loon. Occasionally arrive in February. Kalamazoo, Mich.

Golden Crowned Thrush.

This little bird is abundant in my locality, during all the summer months. They generally arrive in May, and depart in the latter part of September. They seem to prefer the dry, leafy woods, and here they can be found in abundance. About the last week in May, or first in June, the nest is commenced. It is situated on the ground sometimes near a bunch of weeds or other underbrush, and is covered over like an oven, with an opening on the side. The material used is dry leaves, grasses, etc, lined with moss, hair, and grass stems. The eggs, usually four in number, are of a creamy white color, spotted and blotched with reddish brown, and measure from 80x60 to 90x70. Beside the eggs of the owner, those of the Cowbird can usually be found. A nest I found on June 17 '89 contained two eggs of the Thrush, and four of the Cowbird. The Golden Crowned Thrush seems to have no song, except a note resembling *peche, peche*, uttered five or six times in succession.

B. H. S., 1220 Woodward Ave.,

Detroit, Mich.

Am. Long Eared Owl.

In the past numbers of the OOLOGIST I have seen several short articles on this bird. I have had the good fortune with a friend, to secure five sets this season. All were found in deserted crow's nests and in four cases near a house some them less than 100 yds. I have often in winter known these birds to roost in a pine tree a few yards from a house, and they were always quite tame, especially after night.

My first set, taken on March 11, '89, was one of eight eggs in a deserted crow's nest in a white pine, a favorite tree with the Owl, about 20 feet from the ground. The old bird did not leave the nest until I was very close to it. The eggs were placed in the bottom of the old nest, just as it was, except a few feathers from the breast of the old bird. It had evidently begun incubating with the first egg, as some had well-formed embryos, and others were quite fresh. One, to all appearances, having been laid that morning.

The next set was one of seven, taken five days later in a pine tree ten feet from the ground. I had ample opportunity to observe the old bird during the time she was laying this set, as it was only fifty yards from an old house on the farm, and not over 150 yards from the dwelling houses. She deposited an egg every other day, taking fourteen days for the seven eggs. Incubation began with the first egg. Before laying she sat on the nest for a week or more, either to dry it or perhaps to shape it. Nothing was added to it by the Owl.

The third set was taken from an old crow's nest in a pine tree fifteen feet from the ground. Nothing was added to it by the Owl. It was taken March 22, and was of seven eggs, incubation begun in some of the eggs, as usual, while some were fresh. It is in the collection of F. W. McCormack, of Leighton, Ala.

The fourth set was of seven eggs, taken from the same nest as the second set of seven and from the same birds as the female never left the nest, but continued setting. She began laying on the 28th and deposited one egg every other day as before, and had finished by the 12th of April. Quite a number of feathers were shed from her breast and left in the nest. Incubation as usual. I can detect no difference in this set and the first set she laid.

The fifth set was taken on April 15th. It was of five eggs, incubation well begun in all. It was found in a deserted crow's nest in a hedge, ten feet from the ground. The nest was in very bad condition and would hardly hold the eggs. The Owls were around this nest over a month before they began laying. The Owl in the grove began laying her third set on April 25th and deposited seven eggs, making twenty-one in the same nest. I did not take these but let her hatch them. The period of incubation was about a month. One egg was thrown from the nest and another was found to be rotten. The first one to hatch was found dead under the nest next morning. Three days later the next one hatched, and two days after the third, another egg was thrown from the nest at this time and the fourth hatched four days after third. The second and third were nearly of a size, but the fourth was much smaller, and the others left the nest some time before it.

The female was very tame. When thrown from the nest she would return. A number of mice were generally found in the nest with the birds and the pellets of the old birds contained no bones but those of mice.

A Green Heron raised a brood not over twenty yards away, and many hundreds of Bronzed Grackles nest in the grove.

A set of eight eggs shows the following dimensions: 1.62-1.25, 1.64-1.28,

1.63-1.30, 1.58-1.34, 1.61-1.28, 1.62-1.29, 1.60-1.29, 1.56-1.29. A set of seven: 1.60-1.28, 1.59-1.27, 1.60-1.30, 1.52-1.27, 1.52-1.29, 1.52-1.30, 1.61-1.23. Average of the fifteen eggs, 1.63-1.28. Ridgeway gives the average as 1.66-1.28.

The eggs have small hollows running lengthwise in most of them, and they are pitted more or less over the entire surface.

Let us hear from others regarding their experience with this bird.

A. C. MURCHISON,
Kewanee, Ills.

Wood Ibis in Illinois.

In "Bulliton No. 2, Division of Economic Ornithology, U. S. Dept. of Agriculture" in the "Systematic Report" of the birds of the Mississippi Valley under Wood Ibis, *Tantulus locustator*, (Linn.) we find the "Wood Ibis" is a Southern bird, common in all marshy localities near the Gulf coast. A few ascend the Mississippi Valley, where they have been taken in Indiana, Illinois, Wisconsin, Kansas and Missouri. They are rare, irregular, etc. The reader may, therefore, easily imagine my surprise at finding them by the hundreds while staying for a few days on the Illinois River, in in Lat. about 39 degrees, 19 minutes. At this place the bluffs are three and one-half to four miles distant, with a woods and lakes intervening—a veritable sportsmen's and collectors' paradise. The lake which I visited is called Potato Prairie from the fleshy rootstocks of *Nelumbium* which abounds there. The lake is surrounded by heavy woods which are full of wild turkey, besides ruffed grouse in great numbers. As the forest approaches the lake the large trees give way to stunted willows and dogwood, which as the water becomes more constant and deepens, yield to burreeds, flags and water lilies, with large expanses of open water, which at this

season alone contains water. Here are found thousands of Little White Egrets, *A. candidissima*, feeding on young fish. During the overflow season, *i. e.* when the bottoms are flooded by back-water from the Mississippi, fish come from the river into the lakes to spawn. Thus when the water recedes and finally the long droughts of summer leave behind only a series of smaller lakes and expanses of mud flats, where from October to August is one continuous lake, here Herons find excellent feeding grounds in the shallows.

While I thus had an opportunity to observe this bird undisturbed, I took occasion to notice its manner of securing its prey. Standing or quietly stalking along in water almost up to its body it seized its fish between its mandibles invariably, instead of piercing with its spear-like bill as has always been my impression.

While Egrets seem to be drawn together by a social instinct when feeding Great Blue Herons alight and feed at random, but when frightened Egrets after darting here and there for a time, rise and make off in a straggling flock, while the Great Blue Herons arise high in the air in one flock and wheel round and round in majestic circles.

As we made our way from one tract of open water to another through chains of lesser lakes which are now mere mud flats, numerous Rails, Least Bitterns and a solitary woodcock rose from the surrounding reeds, appearing for an instant, then vanishing over their tops. Darting hither and thither, mingling with the hundreds of swallows, white-bellied mostly, were flocks of Least Tern and an occasional Night Hawk, while now and then a Turkey Buzzard sailed slowly along the shore in quest of stranded dog fish. Farther out than the Egrets could wade stood the Wood Ibises with pantaloons rolled high up to his body. The whole demeanor of the Wood Ibis is more stoi-

cal than that of a Heron; in fact he has much of his European cousin's philosophical turn of mind, meeting alike friend and foe with that suggestive "clack" of his huge bill. Our host had one with the tip of his wing shot off, which he kept as a pet. Among cats or dogs he unhesitatingly asserted his rights, taking each by the nose in his powerful mandibles—an ordeal which the same dog would hardly subject himself to a second time since a Wood Ibis stands almost waist high to a man, but at the sight of a pig he always lost his courage and fled. This particular Ibis was an enormous feeder in the broadest sense, eating any scraps from the table, provided they be placed in water whence he skimmed them off with his bill. From observing this bird and the contents of the stomach of one from which I made a skin, I am inclined to think the Wood Ibis an enormous feeder to a certain extent. Did space permit, many pages could be written upon this one bird, but as I probably will spend next spring in that place collecting and I may then give my experiences from time to time through the columns of the OOLOGIST.

H. F. A.
Carlinville, Ills.

A Good Way to Trap Hawks.

While talking with a painter one day on the subject of hawks, he told me how he has caught a good many large ones. He said he took a small steel trap which he set on a conspicuous dead limb of a tree in a locality which hawks frequent, and, baited it with a small dead bird, which he secured to the pan of the trap. Be careful to fix the bird so that the jaws will clear it, on closing. The hungry hawk sailing along spys the bird, which he grabs at with his talons, and is thus caught. I set one and found it to be very efficient.

J. HARMANUS FISHER, JR.
Baltimore, Md.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

Correspondence and Items of Interest to the student of Birds, their Nests and Eggs, solicited from all.

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Jottings.

The big fire at Chautauqua and the great storm at Atlantic City, while creating a considerable damage in our immediate locality, and causing our neighbors great loss, we are pleased to be able to inform our patrons, caused us no damage. We desire to express our thanks to our patrons for the interest shown for our welfare in making inquiries in regard to our loss, and expressing hopes that we entirely escaped these two great casualties.

Our printer thinks that we have neglected an important duty by not announcing that the Oologist is now being printed from new type, purchased expressly for it. We might also add

that the OOLOGIST is being printed in one of the largest and best equipped job printing offices, outside of Rochester and Buffalo, in Western New York, viz.: that of Mr. A. M. Eddy, of Albion.

As we go to press we receive the following note from our friend, Mr. E. B. Webster, of Cresco, Iowa, Publisher of the Hawkeye, Ornithologist and Oologist:

Cresco, Iowa, Sept. 28.

Please announce that the Hawkeye, O. and O., is discontinued for the present, and that all claims presented now will be honored in the future. Am completely burned out. Lost nearly \$1000, insurance \$225. 22 buildings burned.

Respectfully,

E. B. WEBSTER.

The Hawkeye, O. and O., was one of the best publications of its class published, and we trust Friend W. will receive sufficient encouragement to guarantee its early reappearance.

In our Premium List we stated that if in any instance we failed to mail the OOLOGIST by the 10th of the month, we would send our patrons a coupon, good for 10 cents. As yet we have mailed each issue before that date, and consequently cannot be called on to pay the forfeit. The numerous delays and in many instances lost OOLOGISTS, have been occasioned in mails after it was beyond our control. We are in no way accountable for, and fail to see any means whereby we can avoid the errors of the clerks in the employ of the Government. Should our patrons not receive their OOLOGIST by the 15th of the month, we will gladly mail them another copy.

During the past two months we have been very very busy and have been obliged to work both night and day. Our Exchange Extraordinary offers brought us in more answers than we bargained for, the boxes and packages came piling in by the "hundreds," and

so many of them that a large number were necessarily neglected until we could take the time to attend them. We have endeavored to fill them in retation received, and expect to have all straight by Oct. 15th. Many of our patrons would have had their exchanges attended to much more promptly had they not neglected to write their names on the outside of the package.

From September 10th to October 1st much correspondence was necessarily delayed, owing to the fact that our stores at Atlantic City, N. J., and at Chantauqua, N. Y., were still running and that we were obliged to send our assistants from Albion to attend our exhibits at the Buffalo and Detroit International Fairs. At this date, Oct. 7th, we are hard at work straightening out all correspondence, orders and exchanges and if any of our patrons have not had their orders attended to, with big interest on delay, by Oct. 20th, they will please drop us a line stating full particulars and we will, if possible, straighten matters to their entire satisfaction.

Large Sets.

W. C. H., in the September OOLOGIST, mentions finding a set of three Mourning Dove's eggs. I have also found the same number. Two were of the usual size, the third was smaller. A friend of mine took, last season, a set of three Ruby-throated Hummingbird's eggs, also a set of Pied Billed Grebes. The following are some of my large finds: Set 16, Virginia Rail; 18, Sora Rail; 12, Blue-winged Teal; 12, Young Kingfishers; 6, Cooper's Hawk; 7, Bronzed Grackle, 4, Cowbird with 3 of Song Sparrow; set 10, Flicker; 8, Red-headed Woodpecker and six Yellow-headed Blackbird. These are all of my large sets, but I have had very good luck the past season in getting full sets.

W. D. L. B., Minneapolis, Minn.

Birds of Bertie County, N. C.

Following Mr. Clute's and others example, I will endeavor to interest the readers of the OOLOGIST with a description of a part of the birds of this county.

Of the Thrush family the Catbird is the most numerous, and is only a summer resident, migrating South in the latter part of September. The Wood Thrush comes next and is quite common during the summer months. The Robin is an abundant winter resident, migrating North when spring opens, to breed.

The Bluebird is a resident at all times and build their nest in any suitable place.

The Blue-gray Gnatcatcher is not very common, and is only a summer resident. This species construct the nicest nest of any bird that it has ever been my lot to find.

The Carolina Chickadee is common during the summer and breeding season I collected a set of this Chickadee last April, and the nest was a hole excavated in the dead top of a pear tree. It contained six eggs but I broke one in trying to get them.

Of the Nuthatches the Brown-headed is quit common. Indeed, it is the only one that breeds here, I believe. These birds always excavate a hollow for their nest in almost any suitable place; but nearly always in the new grounds when there are any high stumps.

The Carolina Wren take the lead of all the rest of the Wrens in numbers about here. Resident.

Of the Warblers the Hooded Warbler is the only one that I know anything about. These birds alwas build their nest in the small under-bushes, and only a few feet from the ground, generally not more than three feet. Summer resident.

Vircos. The Red-eyed Virco is the only representative of these beautiful

nest makers in this county, I think. Summer resident.

The Bank Swallow is quite common in the spring during the migration. They are said to breed in the banks along the Albemarle Sound.

That great pest, the English Sparrow, has not got in this county yet. The most common sparrows in the summer are the Song and Chipping Sparrows, and in the winter the Swamp and Yellow-winged Sparrows are very common.

Crows. The American and Fish Crows are the only birds of this family that are seen in this county. They are both numerous. The Fish Crow is a summer resident, while the American Crow is a resident at all times.

The Meadow Lark is the only Lark here and it is a winter resident.

Flycatchers. The Acadian and Crested Flycatchers are common, and migrate South on the approach of winter.

The Ruby-throated Hummingbird is the only of this species that we see in our gardens. Common summer resident.

The Chimney Swift is common, building in almost every chimney that it can. Summer resident.

The Chuck-wills Widow, Whipoorwill and Night Hawk are all common. Almost any night in the breeding season one can hear three or four Chuck-wills Widows at a time. Summer residents.

The Pileated Woodpecker is common and is to be met with in almost any swamp. The Golden-winged and Downy Woodpeckers are the most numerous residents.

The Belted Kingfisher is to be seen frequently along streams of clear water, in which there are plenty of fish.

The Black and Yellow-billed Cuckoos are both here in summer.

Of the Owls, the Barred Owl is the most numerous, although the Great and Little Horned Owls are to be met with occasionally.

Birds of Prey. The Red-shouldered

Hawk is a common resident. The Sparrow Hawk is a resident, but not so common as the Red-shouldered Hawk. The Pigeon Hawk is seldom seen. The Bald Eagle is not very common.

The Black Vulture is a common resident, and the Turkey Buzzard is very common. In fact, there is never a day but what the latter may be seen.

Wild Turkey. This fine bird is common, being met with in thick forests and dense swamps. Resident.

The Bob-white is an abundant resident, and in walking over an old field two or three gangs will often be flushed.

The Green Heron is common and breeds. There is a herony near here that two or three dozen eggs can be collected in almost any day during the breeding season. The Great Blue and Snowy Herons are to be seen occasionally.

Loons are here in December and January.

J. W. P. SMITWICK,
Sans Souci, N. C.

Collecting in Western Florida.

Seeing the exploits of so many collectors recorded in the OOLOGIST I venture to send the record of a little collecting trip which my father and myself took in Western Florida last winter and hope it will not be to long for your columns. March 20, started up the Wakula river from St. Marks in a leaky water soaked boat, did not see anything till we had gone nearly two miles when I shot a Florida Cormorant: Have three Osprey nests but they were all empty, save one which had young. Shot a few Snakebirds, Gallinules and "Gators."

March 21. Started for the Gulf Shore where we camped for the night.

March 22. Turned out before sun-

rise. Spent the whole morning hunting Rails eggs without success. When I vented my ill humor by shooting six or seven Willets. Spent the afternoon in hunting for Vultures eggs. Shot a few Snipe and Doves, and a Cormorant when I went to camp. Father and the cracker who served as a guide came in with an Egret and a dozen different kinds of Herons. Spent the evening in making up skins.

March 23. Went to a Cormorant rookery, the nests were put in the top of dead cypress trees and as I had not any climbers I could not get to them. While going through the pine woods I found a Brown Nuthatch nest with five fresh eggs, it was placed in a dead stump thirteen inches from the ground, the nest was in plain view, the mouth of the hole being four inches wide while the cavity was scarcely six inches deep. Shot a few Boat-tail Grakles and Fish Crows. Put in the afternoon sitting under a Palmetto tree skinning birds.

March 24. We fired the marsh to day and shot the Rails as the flames drove them out of the dry weeds, we shot four different species: Sora, King, Clapper and Louisiana Clapper Rail. On the way to camp we saw a large flock of White Ibis, I fired at them but did not kill any.

March 25. Went up the Wakula this morning. Shot some Snake birds and Little Blue Heron. Shot an Egret but as it fell in the swamp we did not get it. Saw an Alligator twelve feet long and shot him through the head three times but did not get on.

March 26. We reached home to-day, well pleased with our trip, so far as eggs go it was a failure, but for bird skins it was a grand success.

CLARENCE A. SMITH.

A White Sparrow.

"At Twelfth and Oxford streets yesterday four groups of interested sight-

seers stood upon the four separate corners intently watching the antics of a snow-white English Sparrow, which seemed to be king among its soberer coated fellows, demanding and receiving from them an amount of homage and respectful attention that would have done the heart of his highness, the Shah of Persia, good. A resident of the neighborhood said that he had noticed the albino for two or three years. "He has a nest in yonder church steeple," he explained, "and I have spent considerable time in watching him and studying his peculiarities. He is a male bird and a bachelor. That may sound strange, but there are lots of bachelor and spinster birds among the English Sparrows. Season after season they refuse to mate, set up establishments of their own and live in them, despised and quarreled with constantly by the married birds. This white Sparrow seems to have some authority over the others. They bring him food and even build his nest for him. Life with him is an existence of idleness and luxury. When any bird refuses or neglects to pay him tribute he attacks the direct, gives him a sound drubbing and eventually brings him to terms."

I took the above from the Atlanta Constitution, and the Constitution copied it from the Philadelphia Inquirer, and I should be glad to hear from some of oologist friends in Philadelphia about the white Sparrow, for I know it would interest all the readers of THE OOLOGIST.

J. W. P. S.,

Sans Souci, N. C.

Nests and Eggs of North American Birds.

The Following is What the Farm, Field and Stockman, of Chicago says of the third edition of Davie's Work.

A thorough and reliable work, the new edition of which has been looked

for during several months by those interested in birds. In some respects it is a unique work. The investigations to procure the necessary scientific facts have been pursued with great persistency and fidelity. The author seems to have brought under contribution every one who could give the data wanted from original sources. Usually the authority is cited. The illustrations are a great help especially to youthful students or collectors. They add much to the attractiveness of the book for the general reader. There are thirteen of these full-page illustrations. Some of them probably depict what has never before been attempted. Such for example as that of the Burrowing Owls, Water Ouzels or Dippers and nests, California Bush Tit, etc. Among the plates which are an ornament to the book as pictures are those of the Swallow-tailed Kite and nest, the Wood Ducks, Blue Gray, Gnatcatcher and nest, etc. There is a touching and poetic dedication to the memory of Locius S. Willson, evidently a companion and dear friend in the pursuit of scientific knowledge and in the appreciation of nature.

One feature which should popularize this work for collectors, students and the general reader, is the care in giving prominence to the common names. In this respect great care and good sense is shown in the type and the general style of printing and arrangement of paragraphs. The scope of the work seems to be to cover the land and water birds of North America and to give a description of the nests and eggs. It includes all the species that are indigenous north of the Southern United States boundary, including Greenland and the Peninsula of Lower California. The breeding range of each species is given, the time of nesting, the exact number of eggs laid, their color and size, together with the chief characteristics of the birds.

Often the measurements of eggs are

of those in the cabinet of the author. It should be understood that though this is merely a new edition of a work already having a good reputation among scientific men, it is much larger and more complete than ever before. Nothing could be better to encourage thoroughness in students and aid all collectors to identify specimens. To facilitate practical use a full alphabetical index is added, not only of the leading name by which the bird is commonly known, but with all the common names mentioned in the text. A page or two of directions for collecting and preserving birds' nests and eggs will be found very useful to many beginners in this delightful occupation of a collector. We might quote from any page and interest our readers in the facts so clearly and succinctly stated. Many curious and interesting facts are noted concerning birds more or less familiar, but to whom the general reader had never applied the scientific methods of observation and investigation, illustrated in this book. No section of our country has been neglected. The birds of Arizona are apparently as fully described as those of Ohio. Where on every page there is so much of value, it is difficult to select. Among the more elaborate and interesting articles, we may cite the following:

Brown Thrasher, the common Blue-bird, American Magpie, American Eared Grebe, Great Auk, Great Horned Owl, Burrowing Owl, Red-headed Woodpecker, Parula Warbler, Oven-bird, Bryant's Marsh Sparrow, Cowbird, Chimney Swift, Swallow-tailed Kite, Turkey Vulture, Cooper's Hawk, Red-tailed Hawk, Red-shouldered Hawk, Swainson's Hawk, Duck Hawk, etc., etc.

We know of one young collector who has identified the Oven-bird by the description on page 378.

The print is large and clear. The work is generous and full in whatever

aspect it is viewed. There are 475 pages of large size. We would suggest that every school library in the land should possess a bound copy of this work, and that every boy or girl who has a taste for ornithology, be provided with at least a paper edition if not that in cloth.

The Black Tern.

This is an abundant species here, arriving during the latter part of April or first of May, when they may be seen in considerable numbers and picking up the grubs of which they are very fond. They can be easily caught in steel traps by putting a grub on the panel of the trap and setting it on a newly plowed furrow. One will come along and when it sees the worm it will balance itself over the trap and make a dive for the tempting morsel, but it finds that it is not as easy to rise as it was to drop, and so it stays there. When the other terns see that one is in such a fix they hover over it diving part way down and uttering cries of distress until frightened away. But they will not take warning by its fate and the trap is set in the same way again another will soon be caught. When a little "kid" I used to amuse myself by catching them in this way, and thought it great sport.

The sloughs in this locality are a favorite nesting place. In these, on decaying vegetation or on logs formed by sunken muskrat houses, the nests are placed and consist of small piles of the decaying vegetation slightly hollowed. The eggs are two or three in number, usually three. They vary from brownish to greenish in color, spotted and blotched with black and brown of different shades. They are usually deposited about the middle of June, average size, 135x98 in. In some sloughs these birds breed in colonies; in others only one nest will be found. In the latter case the bird constructs its own nest and it is usually well built. They stay here till late in the fall.

JOHN V. CROSE, Marathon, Iowa.

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7	Coughs, Cold, Bronchitis...	.25
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9	Headaches, Sick Headache, Vertigo...	.25
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Vol. VI,

ALBION, N. Y., NOV., 1889.

No. 11

Exchanges and Wants.

Brief special announcements. "Wants," "Exchanges," inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash with order.

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THE OOLOGIST.

VOL. VI.

ALBION, N. Y., NOV., 1889.

NO. 11

The Thick-billed Grebe.

(*Podilymbus podiceps*.)

Although this is one of the most generally distributed of Grebes, ranging nearly over the entire United States and beyond, I have seen very few articles written on this very interesting bird. Probably its retiring habits, or rather the placing of its nest where it can not often be reached without a boat, is the reason why it is not more generally observed.

In most of our small lakes here will be found a growth of coarse rushes extending to a greater or less degree over the entire lake. Among these rushes will be found the summer home of the Pied-billed Grebe, known in our local vernacular as "Hell-diver."

This Grebe, like the Loon, will dive at the flash of a gun, making it very difficult to shoot one if it should see you; or sitting on the water, it will quietly sink backward, disappearing beneath the surface, leaving scarcely a ripple to mark the spot it had occupied but a moment before.

Their nest is composed of rushes and decaying vegetation. The rushes pulled up from the bottom of the lake and placed crossing each other on the water, with the small ends farthest from the center, and serving a double purpose as a float and as a foundation for the heavier material which is gathered together in a little heap from two to four inches in height, and perhaps six or eight in diameter, hollowed just enough to keep the eggs from rolling into the water, probably not over an inch. In this depression are deposited the five to eight eggs, generally six or seven, commonly eight, rarely ten, always wet from the soaking and decaying vegetation of which, as I have said, the nest is composed, and always

warm from the heat generated by the decomposition of the same materials. In color they are a light greenish-blue, when freshly laid, resembling the tint found in some Heron eggs, or like the eggs of the Least Bittern; but they soon take on a deep buff, drab or light-brown shade from coming in contact with the nest. Some few, even after being in the nest quite a while, retain the original color in spots, giving the egg a cloudy, mottled appearance. Still others take on a uniform dirty or greyish-white, not showing the heavier stain at all.

I have very seldom found a set of eggs without a few showing a rough, warty excrescence or calcareous deposit in spots on the shell. When found the eggs are almost always covered with decayed rushes and grass taken from around the nest by the parent bird. Although I have collected a few sets that were uncovered when found, it is an exception and not the rule to find them where their has not at least been some visible attempt at covering them.

Only in one instance have I seen the bird cover her eggs, and then I found the nest, to her, unexpectedly. She stood upright on the edge of the nest and drawing her head down until her bill nearly or quite rested on her breast, she, with a forward and upward movement, pushed and lifted part of the nest upon the eggs, repeating the operation two or three times, smoothing it over them with about the same motion that a duck goes through in feeding when on the water. This was all done in less time than it takes to tell it, and throwing herself backward off the nest, she disappeared beneath the water.

From as careful an observance of this bird as I have been able to make, and a wide range of experience as re-

gards their nidification, I will say that it is my opinion that the bird rarely, sets on the eggs during the day, but leaves them to be hatched by the heat generated by decay of nest, decomposition assisted by nature's great incubator, the sun. Why the Grebe covers her eggs, if it is not for the purpose of fostering the heat generated, I do not know. They have no natural enemies, in this locality at least, to guard against, which the covering would prove a panoply of defence. I suppose opinions vary as to the cause, but we can see the effect in the finding of the eggs in one nest, all the way from fresh to badly incubated. But be it as it may, this trait of the Grebe shows one of the all-wise and wonderful provisions of nature through what we are pleased to call the instinct of a bird.

The eggs in size are very variable. A few that are in my cabinet present the following measurements: 1.62 x 1.16, 1.75 x 1.16, 1.87 x 1.12, 1.81 x 1.19, 1.75 x 1.19, 1.73 x 1.19, 1.62 x 1.12, 1.56 x 1.09, 1.75 x 1.19, 1.97 x 1.09. The last is out of common proportions, yet not rarely found. L. DART.

Birds' Nests.

Collectors of birds' eggs are apt to regard the nest as a secondary consideration, yet there is as much to be learned from it as from the eggs themselves. There is an individuality about it which the eggs do not possess.

The Orioles are among the best of nest-builders. The deftly woven nests of the Baltimore Oriole are all made after the same general pattern and yet no two are exactly alike. In placing the nest the bird shows great cunning, also, and the question is not how to find the nest, but how to get it after it is found. The nest of the Orchard Oriole is interesting because of the materials used in construction; grasses are common enough in birds' nests, but this Oriole

is one of the few birds, who prefer green grass.

Another family of pensile nest-builders, are the Vireos. We can generally find their pretty cup-shaped nests in the deep woods where they are swung from the forks of some low shrub, sometimes as low as two feet from the ground. The Cow-bird, too, manages to find them out however cunningly they be concealed.

Several species of Fly-catchers are famous for ornamenting their nests in an exquisite manner. The common Pewee usually covers the outside of its nest with green moss, and the Wood Pewee uses gray lichens for the same purpose. Another, the Great Crested Fly-catcher, has a fancy for cast-off snake skins and is seldom without one or more.

The Cat-bird's nest is an unique affair usually found in thorn-bushes; the outside is built of coarse twigs and the inside of fine rootlets—anyone can identify it even in mid-winter.

Indeed, winter is a very good time to go a nesting; then one has no trouble to find them. The Goldfinch's nest is one of the most common found on such snowy excursions; the bird is a good architect and builds a nest that will often out-last several winters.

The most of our resident sparrows nest on the ground; a few nest in trees; the Song Sparrow seems undecided which to do so nests in both places; in the case of such birds as breed, sometimes in trees and sometimes on the ground, it is nearly always the early broods that are found on the ground; as the season advances, more and more nests are found in trees. Some one has suggested that the reason the birds take to the trees, is that they want to avoid the disturbance of their nests by the farmer in cultivating the land; but perhaps a better reason for the early broods being found on the ground, lies in the fact that the bushes which would

otherwise contain their nests, are not in leaf when the first nests are built.

For the most part the nests of any one species are all built alike and any variation from the general type is worth noting. Late last summer the writer found a nest of the Meadow Lark which was completely roofed over—the entrance being on the side, toward the north; the nest proper, that is, the part below the surface of the ground, was composed entirely of needles from the white pine; the roof was of grass.

On the 19th of May, '89, a Robins nest was found in a rather unusual place, being built in a hole in a tree; the mud wall was especially prominent though it would seem to be of little use in such a place.

W. N. C., Binghamton, N. Y.

Yellow Billed Cuckoo.

Coccyzus Americanus, LINN.

This bird of which I have seen little mention of in the OOLOGIST is plentiful in this locality and is known to many under the name of Rain-dove or Rain-crow. It utters its note most frequently before storms, from whence it gets the name. They are oftener seen than heard and again when heard they are seldom seen. The times of nidification of this species, range from May to September and I have obtained fresh eggs in the latter month. Of eight nests which I have had opportunity to examine have found 'the bird on' in every instance, admitting of my approach to within a few feet. If you are cautious and stop at a respectful distance, the bird will give you a good opportunity to look at her. The long curved bill is very conspicuous as so is the iris. The whole plumage of the bird is gray, darker above, shading to white beneath, with very beautiful black spots or bars on the under side of the tail. Most of the nests of this species which I have found

have been located in apple trees from 6 to 20 feet above the ground while a few were placed in thickets and bushes on marshy grounds. They are very rudely constructed being but a few twigs, little sticks and a few leaves laid together to form a platform barely hollowed sufficiently to prevent the eggs from rolling off, which indeed I once experienced in making to hasty an ascent of a shaky limb. The eggs are from two to four in number, though sets of six are on record. Fresh and incubated eggs are generally found in the same nest owing to a lapse of several days between the depositing of the eggs. When fresh they have much the color of eggs of the Green Heron but as incubation advances, they become lighter. Average size is 128x88. Elliptical in form. The Black-billed, a closely allied species differ, but little in general description. The nest is somewhat more substantially built, and the eggs a little smaller, 128x80, of rather a darker green. In many nests of the Yellow-billed species have I seen the eggs from below, which is impossible with the Black-billed. J. P. J. Kelton, Pa.

A Query.

Medina, N. Y., Sept. 14, '89

There is a problem which by its repeated occurrence has forced itself upon me for a solution, and as I am unable to solve it, I bring it to you hoping that either you or some reader of your valuable journal may be able to. It is this: Every year as soon as the first of September comes and all through the first half of that month, at about sundown every night, large flocks of black-birds are seen flying over to the northeast. Now the fact of their congregating in itself would be nothing of unusual occurrence, but when we consider that it is always in the same direction, it appears to be not quite so commonplace. For several years I have noticed this movement and it is always and invariably toward the northeast. Now the question arises, where are they going?

Hoping that I may receive some information that will set my curiosity at rest. I am

Very respectfully,

NEIL F. POSSON, Medina, N. Y.

A Mechanical Egg Drill Improved.

Seeing a recent article in the OOLOGIST, how to make a mechanical egg drill, I will tell my Oological friends about my drilling apparatus, which I like much better than the one described in July OOLOGIST by Fred W. Stack.

First, I got a fifty cigar box and then I made two wheels, one larger than the other. The larger one measured $3\frac{1}{2}$ in. diameter and for the smaller one, I used a No. 40 Clark's cotton spool.

Having gotten my wheels in shape, I proceeded to make spindles for them to work on. The larger wheel's spindle should project out on the side that the box opens on, and fixed for a crank to work on, by means of which the drill is to be put in motion. For the smaller wheel's spindle I got a reed that the drill I wanted to use would fit in the hollow nicely—not too tight. I then fastened each wheel on its respective spindle. Then I got a piece of wood an inch wide, quarter of an inch thick and long enough to fit in the box lengthwise, and made two holes in it large enough for the spindles to work in loosely and in such a position that neither wheel would touch the ends or sides of the box in running. I also made two corresponding holes in the bottom of the box. The spindle of the smaller wheel must be long enough and so arranged that the drill can be put in position for drilling from the bottom. I forgot to say that I cut a groove around the larger wheel for a band to work on.

Having everything adjusted in their proper places with a band on the wheels (For a band I used a piece of twine.) I fastened the piece of wood in its place with some small tacks. I then made a crank and fixed it on so that it could be removed to let the box shut.

If everything is well adjusted one can drill eggs as if by magic.

All I have to do when I want to drill

eggs, is to open my box, adjust the crank and drill, place the box on one of its sides (not bottom, top nor ends) and fasten it with a small tack to hold it steady, and then I am ready for work.

J. W. P. SMITHWICK,
Sans Souci, N. C.

Birds Moving their Eggs.

The September number of your valuable little monthly just received, and in perusing its contents, I noticed a query as to what became of a certain set of Vireo's eggs which mysteriously disappeared from the nest and were replaced by a Cowbird's egg. My theory is that the Cowbird removed them before depositing her own. The ground for this belief is based upon a tenanted nest of the Red-eyed Vireo found by me this year. It was a beautiful little cup-shaped structure suspended from the fork of a small dogwood tree, and when found contained one egg. Visiting the nest five days later, three more eggs had been laid, this making a set of four which I did not take, as my cabinet already abounded in eggs of this species. Collecting in the same swamp, the following Sunday, I pecked into the nest and to my surprise, found two of the Vireo's eggs gone, and their respective places occupied by a pair of ugly cowbird's eggs, both of which, I destroyed. I searched the ground in the vicinity thoroughly for the missing eggs, and at last found one about 20 feet from the nest. It was perfect with the exception of a hole in the side as though the shell had been punctured by the bill of some bird and the contents eaten out. Sometime after this visit, I chanced to pass that way, and curiosity prompted me to pull down the limb and look into the nest; here a second surprise awaited me, for the nest contained four eggs of the cowbird and one little cowbird just struggling into existence.

In regard to birds carrying eggs from

one nest to another, I remember reading somewhere of a farmer who, while ploughing a field, flushed a Quail from her nest nearest under the horses feet. Not wishing to break up the happy home, he carefully removed them a short distance to a bed of grass made for the purpose. On returning an hour or two afterwards, he found the eggs gone, and during the course of the afternoon, the Quail was discovered sitting contentedly on her eggs in a fence corner 100 yards away.

I also recollect reading another interesting anecdote of a Robin, transferring her eggs from one nest to another before the last nest was hardly finished.

In conclusion, I will do myself the honor of saying that *Davie's Nests and Eggs of North American Birds* is the best book of its kind I ever saw.

Yours Truly,

J. CLAIRÉ WOOD.

The Cardinal Grosbeak.

The Redbird, as it is commonly called, is one of the most abundant birds in Kentucky and one that has attracted as much attention as any. Its sprightly figure, its gaudy plumage and its vivacity do not fail to make it one of our best known songsters.

The Cardinal is sometimes called the Virginia Nightingale on account of its clearness and strength of voice and note, many of them resembling the slight notes of a lile and are nearly as loud. They begin their song with the first appearance of dawn and frequently, with little intermission; sing for a whole morning together.

The whole upper part of the Cardinal's body is a dusky red except the side of the neck and head, which, with the lower parts, are a bright vermillion. The head is ornamented with a crest or topnot.

The female is smaller, but there is not much difference in the plumage.

It is not a migratory bird, but remains with us throughout the entire winter months, and as seen flitting throughout the leafless forests, its brilliant plumage contrasts strangely with the stark and frozen branches of the trees, the bleak surroundings and generally dismal aspect, bringing back to the collector memories of spring and summer, when the selfsame woods were green with leaves, and the forest aisles filled with sunshine, and feathered songsters of all description twitted and sported away the golden hours, filling the air with their sweet carols from early morn 'till dewy eve.

The Cardinal generally breeds in a thicket of scrubby bushes not far from the outskirts. Half the time a scrubby thorn tree is selected for the nesting site, which is situated four or five feet from the ground. It is composed of coarse grass, vegetable sprigs, fine twigs, bark of grapevine, and lined with finer grasses and hair.

Davie, in his third edition, intimates that the number of eggs found in a clutch are three or four, as many of one number as of the other. In this section I find that three-fourths of the sets found contain only three eggs.

The ground color of the egg is generally a dull white, sometimes with a tinge of green, with lavender and reddish-brown spots and blotches distributed over the entire surface.

I have in my possession the finest set of eggs of this bird that has ever come under my notice. They were taken about a mile from Lebanon. The nest was placed in a low pine tree about four feet from the ground. The ground color of the eggs was of a greenish hue and the markings are so heavy and large that they cover nearly the entire surface. Incubation was fresh, and number of eggs, four.

A. C. L., Lebanon, Ky.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

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Jottings.

In this issue of the OOLOGIST we give a complete list of the birds of North America, arranged according to the new A. O. U. check list. We have also quoted as far as possible, prices for each species. A few of these prices may differ slightly, from those of other dealers, but taken as they average, will be found the nearest, accurate and most "consistent" ever published; and they have received the approval of one of our best American oologists. The list will be the standard of the majority of our collectors for 1890.

For 1891 we intend to make the list far more accurate and desire suggestions from any of our older oologist in regards to an advance or decrease of any quotations we have made. While the quotations given, will be our regular prices for 1890, and orders will be filled at prices quoted by any reliable dealer, we publish the list in the OOLOGIST for collectors to use as a basis for making their exchanges for 1890.

There are several American birds, included in the European fauna. The eggs of which can be obtained in Europe at from one-half to one-tenth their true value were they collected in America. (The numbers representing these species, on the list, are mostly enclosed in brackets). The quotations are in most cases for the imported specimens, in our 1891 list, (to be issued in Dec.

1890. We shall give prices for both the American and imported specimens of these species.

In order to make this issue of the OOLOGIST of still greater value, we have prepared a few instructive articles in relation to making exchanges, etc. As every collector will want at least a few extra copies of this issue, we will mail them prepaid at the following low rates, viz: four cents per copy; three copies for ten cents; ten for thirty cents; one hundred for \$2.50.

To Pack Eggs For Transportation.

Always use strong boxes, well made from some light material.

Cigar boxes, if well made, answer the purpose very well. The large sizes we do not consider as safe as the smaller ones.

Should the cover fit inside of the end pieces of the box, nail a small cleat across each end on the inside, thereby preventing any possibility of the cover breaking in and crushing the contents, which would otherwise almost invariably happen from the rough usage which the box is sure to receive in the mails.

For orders or exchanges smaller than those required to a "50" size cigar box we use round tin boxes ranging in size from 1 oz. to 16 oz. The saving in postage by the use of these boxes will more than pay the first cost. The larger sizes, although we use hundreds of them, at our risk, we do not consider safe unless the boxes are first covered with corrugated paper before the final wrapping for the mail. Having prepared a suitable box for the specimens, we proceed to pack them by wrapping each egg carefully in a small roll of cotton. The eggs thus wrapped can then be packed in layers, snugly, but not tightly, in the box. Hundreds of eggs are broken through careless packing, and by trying to crowd in too many eggs into a small space.

After wrapping your eggs in cotton, it is advisable to add an additional wrapper of thin paper, tissue is best. Do not wind on several yards of thread,

we know this is a customary practice with many collectors and dealers, but it is both a waste of time and material, and small eggs are far more liable to become broken when unpacked than if wrapped in the ordinary manner.

Pasteboard partitions should never be used unless the sender wishes to be rewarded with a lot of broken eggs. The same caution might also be given to collectors who are in the habit of throwing in their eggs loosely, either in layers or in bulk. Large sea bird eggs can be packed in dry moss, tow, oakum, or similar material.

Never use bran or sawdust, it will work in the holes where the eggs are blown and will make them so solid that they will jolt together and break. Hundreds of valuable specimens have been broken every season through improper packing, fully seventy-five per cent. of these breakages could have been avoided if the packers had only used a little more care and judgment.

Frequently specimens are broken by rough usage and handling in the mails, this of course is no fault of the shipper, but if no agreement to the contrary is made, it is an unwritten law, or we might say understanding, that the shipper guarantees safe delivery and in case of loss by breakage the shipper should either replace such specimens gratis, or have their value deducted from the shipment, provided, however, that the receiver of the damaged specimens return the imperfect or broken ones within three days after they have been received.

Useful hints, items, and instructions are given in the Oologist from time to time, and any question of interest to the collector will be cheerfully answered through its columns.

Numbering Eggs.

Every collector should mark or number his eggs and arrange them accord-

ing to either the A. O. U. Check List of North America Birds, or according to Ridgway's Nomenclature. To young collectors and beginners it is advisable to use the former, as it is the list arranged and adopted by the American Ornithologists' Union and has won trust come to stay. But as there are many large collections numbered and arranged according to Ridgway's and by far the bulk of the eggs in this country bear the Ridgway numbers, it will be some time before our older collectors will make the change and give up the No's that are now as familiar to them as their A. B. C's, but the change must come and we would advise collectors to mark all specimens during the coming season, with the A. O. U., No's.

As it is supposed that you will use, beginning with 1890 at any rate, the A. O. U., No's, you should mark the specimen with the number given it in that list, with a soft lead pencil, never ink, making the figures small, neat, and plain and placing them on the under side of the egg, near the hole from which the contents were emptied. Unnatural stains or marks, other than the No. and set-mark, should never be made on an egg and natural ones should never be removed.

Disposal of Duplicate Specimens.

Collectors usually dispose of their duplicate specimens by exchange with other collectors or with dealers. In both cases some standard list is adopted as a medium or basis of exchange, and exchanges with the former are made at even rates and reckoned at the prices given in the list adopted. It frequently happens that a collector obtains some very desirable duplicates of species not easily obtainable and some other collector may be glad to allow him more than list prices for them, but as price lists of leading

dealers are usually made from some standard say, for example, that the egg of the Robin is worth three cents and the Bald Eagle \$5.00, the prices given other species are made according to their supply and demand when compared with the two species last mentioned. As a rule the prices given in established dealers' lists are as near fair and accurate as can be made and as the motives which induce oologists to make their collections are either for pleasure, pasttime, or study, and not for gain from a financial standpoint, it is safe to say that all exchanges with brother collectors, should be made at even rates. Making exchanges with dealers, however, is different. The dealer handles specimens from a business standpoint and with him it is first a question of "bread and butter," and the "pleasure" part must take second place. As a rule dealers will take what duplicates, if desirable, a collector may have and allow him one-half their regular prices for them, paying the collector in return with specimens at full rates. At first thought, the collector may think this is allowing the dealer a good commission for making the exchange, but it is really all that the dealer can afford to allow, except in cases where he happens to be in need of the species the collector offers, and the collector wants, or is willing to take species which the dealers has a surplus. In this case it is an accommodation to the dealer, as well as collector and he will often allow full, or special rates. Many of our best collectors consider it more profitable and satisfactory to exchange with a reliable dealer, than to make exchanges with a large number of collectors. More especially is this, the case when the collector has a large number of specimens of a single species and it would be necessary to make exchanges with a dozen or more collectors, in order to dis-

pose of them, in cases like these, the additional expense, risk and time, hardly offsets the gain on rate. Both methods of exchange has its advantages, and if the writer had a lot of duplicates that he desired to exchange for others, new to his collection, he would make exchanges with both collector and dealer. Large and valuable lots of fragile specimens should always be sent by express, as it is much safer. Express packages should always be sent prepaid.

Never ship a lot of specimens to anyone without first making a bargain with them. We have doubtless had more unpleasantness occur, over this one failing on the part of our patrons, than any other single thing.

A dealer rarely wants a lot of common eggs at any price. He cannot afford to give large and low priced sea bird eggs in exchange, unless the collector is willing to pay the postage both ways. Other than strictly first-class specimens are rarely wanted at any price. Many species that a dealer has in stock, he cannot give in exchange, unless special arrangements are made to that effect.

Parties desiring to make exchanges, should always observe the following hints, thereby preventing any possible unpleasantness or delay:

Write, stating plainly what you have to offer, and what you desire in return, should an exchange be arranged:—

Pack carefully; remember you ship your eggs at your risk.

Mark your name and address on the package; it is often impossible when the collector or dealer to whom you send has a large correspondence to tell who it is from if you do not.

Last, but not least: Send nothing but strictly first-class specimens in exchange. Specimens of any other quality should be heavily discounted, or returned at the sender's expense.

Small exchanges amounting to less than \$1.00, are rarely desired by a dealer.

~A COMPLETE LIST~

~OF~

THE BIRDS OF NORTH AMERICA

Arranged According to the A. O. U. Check List.

With values for 1890, given for the eggs of each species as far as known. Collectors should adopt this list as a basis for making all exchanges, as it is the latest list published; and the prices quoted have received the approval of the best American authorities. Any American dealer will fill orders for eggs at the prices quoted.

Duplicate copies of this Oologist can be obtained from the publisher at 4 cents per copy, 3 copies for 10 cents, 10 for \$1 cents, 100 for \$2.50. Every collector should have at least a few extra copies.

The numbers in the first column correspond to the A. O. U. Check List of North American Birds, revised; those in the second column to Ridgway's Nomenclature.

1	729	Western Grebe	\$.50	64	680	Caspian Tern	\$.50
2	731	Holboell's Grebe . . . . .	.50	65	681	Royal Tern . . . . .	.40
3	732	Horned Grebe . . . . .	.35	66	682	Elegant Tern	
4	733a	American Eared Grebe . . . . .	.25	67	683	Calot's Tern . . . . .	.40
5	734	St. Domingo Grebe . . . . .	.10	[68]	684	Trudeau's Tern	
6	735	Pied-billed Grebe	1.50	69	685	Forster's Tern . . . . .	.15
7	736	Loon		70	686	Common Tern . . . . .	.08
8	737	Yellow-billed Loon	1.50	71	687	Arctic Tern . . . . .	.15
9	738	Black-throated Loon	2.00	72	688	Roseate Tern	
10	739	Pacific Loon . . . . .	.75	73	689	Alentian Tern . . . . .	.08
11	740	Red-throated Loon	1.00	74	690	Least Tern . . . . .	.35
12	745	Tufted Puffin . . . . .	.20	75	691	Sooty Tern	2.00
13	743	Puffin	1.00	[76]	692	Bridled Tern . . . . .	.12
13a	743a	Large-billed Puffin		77	693	Black Tern . . . . .	.40
14	744	Horned Puffin		[78]	694	White-winged Black Tern	
15	746	Rhinoceros Auklet	3.00	79	695	Noddy . . . . .	.75
16	751	Cassin's Auklet		80	696	Black Skimmer . . . . .	.12
17	747	Paroquet Auklet	3.00	81	700	Black-footed Albatross	
18	748	Crested Auklet	2.50	82	701	Short-tailed Albatross	3.00
19	749	Whiskered Auklet		[83]	702	Yellow-nosed Albatross	
20	750	Least Auklet		84	703	Sooty Albatross	
21	[753]	Ancient Murrelet		[85]	704	Giant Fulmar . . . . .	.75
23	755	Marbled Murrelet		86a	705	Fulmar	
24	756	Kittlitz's Murrelet		86b	705a	Lesser Fulmar	
25	757	Xantus's Murrelet		86c	705b	Pacific Fulmar	
26	758	Craveri's Murrelet . . . . .	.20	87	706	Rodgers's Fulmar	
27	760	Black Guillemot		88	706	Slender-billed Fulmar	
28	760	Mandt's Guillemot . . . . .	.50	89	709	Cory's Shearwater	
29	761	Pigeon Guillemot . . . . .	.20	89	709	Greater Shearwater	1.00
30	763	Murre . . . . .	.25	[90]	711	Manx Shearwater	
30a	763a	California Murre . . . . .	.20	91	710	Pink-footed Shearwater	2.00
31	764a	Brunnich's Murre		92	712	Audubon's Shearwater	
31a	764	Pallas's Murre . . . . .	.20	93	713	Black-vented Shearwater	
32	742	Razor-billed Auk	1.50	94	714	Sooty Shearwater	
33	741	Great Auk (cast of egg)	1.25	95	715	Dark-bodied Shearwater	
34	752	Dovekie . . . . .	.75	96	716	Slender-billed Shearwater	
35	696	Skua	2.50	[97]	707	Black-tailed Shearwater	
36	697	Pomarine Jaeger . . . . .	.60	[98]	717	Black-capped Petrel	
37	698	Parasitic Jaeger		[99]		Scaled Petrel	
38	699	Long-tailed Jaeger	1.25	100		Fisher's Petrel	
39	657	Ivory Gull . . . . .	.40	[101]	718	Bulwer's Petrel	
40	658	Kittiwake		[102]	719	Pink-footed Petrel	
40a	658a	Pacific Kittiwake		103	720	Least Petrel . . . . .	.50
41	659	Red-legged Kittiwake . . . . .	.85	104	721	Stormy Petrel	
42	660	Glaucous Gull		105	726	Fork-tailed Petrel . . . . .	.15
42.1		Point Barrow Gull	1.50	106	723	Leach's Petrel	
43	661	Iceland Gull		103.1		Guadalupe Petrel	
44	662	Glaucous-winged Gull		107	724	Black Petrel	
45		Kumlien's Gull		108	725	Ashy Petrel	
46		Nelson's Gull . . . . .	.50	109	722	Wilson's Petrel	
47	663	Great Black-backed Gull		[110]	728	White-bellied Petrel	
48		Slaty-backed Gull . . . . .	.25	[111]		White-faced Petrel	2.00
49	664	Western Gull		112	654	Yellow-billed Tropic Bird	2.00
[50]	665	Siberian Gull . . . . .	.20	113	655	Red-billed Tropic Bird	
51	666	Herring Gull . . . . .	.20	[114]	651	White-faced Booby	
51a	666a	American Herring Gull		114.1		Blue-footed Booby	
52	667	Vega Gull . . . . .	.30	114.2		Cory's Booby	
53	663	California Gull . . . . .	.30	115	652	Booby	
54	669	Ring-billed Gull		115.1		Brewster's Booby	
55	670	Short-billed Gull . . . . .	.35	[116]	653	Red-footed Booby . . . . .	.35
[56]	671	Mew Gull	2.50	117	659	Gannet . . . . .	.25
57	672	Heermann's Gull . . . . .	.20	118	645	Anhinga . . . . .	.35
58	673	Laughing Gull . . . . .	.75	119	642	Cormorant . . . . .	.25
59	674	Franklin's Gull		120	643	Double-crested Cormorant . . . . .	.25
60	675	Bonaparte's Gull		120a	643a	Florida Cormorant	
60.1		Little Gull		120b	643b	White-crested Cormorant	
61	676	Ross's Gull		120c		Ferrallone Cormorant	
62	677	Sabine's Gull	3.60	121	644	Mexican Cormorant	
63	679	Gull-billed Tern . . . . .	.15	122	645	Brandt's Cormorant . . . . .	.50
				123		Pelagic Cormorant	

123a 646	Violet-green Cormorant	50	204 582	Whooping Crane	\$2 00
123b 646a	Baird's Cormorant	50	205 584	Little Brown Crane	4 00
124 647	Red-faced Cormorant		206 583	Sandhill Crane	1 50
125 640	American White Pelican	50	207 581	Lampkin	1 25
126 641	Brown Pelican	25	208 569	King Rail	20
127	California Brown Pelican	50	209	Balding's Rail	
128 639	Man-o'-War Bird	2 00	210 570	California Gull	
129 636	American Merganser	1 00	211 571	Clapper Rail	10
130 637	Red-breasted Merganser	30	211a 571a	Long-billed Clapper Rail	90
131 638	Hooded Merganser	1 00	211b	Scott's Rail	20
132 601	Mallard	20	211c	Caribbean Clapper Rail	
133 602	Black Duck	40	212 572	Virginia Rail	20
134 603	Florida Duck	2 00	[213]573	Spotted Crane	30
135 604	Gadwall	50	214 574	Sora	10
136 606	Widgeon	25	215 575	Yellow Rail	
137 607	Baldpate	75	216 576	Black Rail	
[138]611	European Teal	20	216a 576a	Farallone Rail	
139 612	Green-winged Teal	50	[217]577	Corn Crane	20
140 609	Blue-winged Teal	25	218 578	Purple Gallinule	30
141 610	Cinnamon Teal	40	219 579	Florida Gallinule	12
142 608	Shoveller	40	[220]	European Coot	15
143 605	Pintail	30	221 580	American Coot	10
144 613	Wood Duck	75	222 583	Red Phalarope	1 00
[145]	Rufous-crested Duck	75	223 584	Northern Phalarope	30
146 618	Redhead	25	224 585	Wilson's Phalarope	1 25
147 617	Canvas-back	1 25	225 586	American Avocet	75
148 614	American Scaup Duck	60	226 587	Black-necked Stilt	75
149 615	Lesser Scaup Duck	75	[227]524	European Woodcock	1 75
150 616	Ring-necked Duck		228 525	American Woodcock	1 25
151 620	American Golden-eye	75	[229]526	European Snipe	25
152 619	Barrow's Golden-eye	1 00	230 526a	Wilson's Snipe	1 50
153 621	Buffle-head	40	231 527	Dowitcher	
154 623	Oldsquaw		232 527a	Long-billed Dowitcher	
155 622	Harlequin Duck	1 25	233 528	Stilt Sandpiper	1 50
156 624	Labrador Duck		234 529	Knot	3 00
157 625	Steller's Duck		235 530	Purple Sandpiper	1 00
158 626	Spectacled Eider		236 531	Acadian Sandpiper	
159 627	Greenland Eider	30	237 532	Prybilof Sandpiper	
160 627a	American Eider	20	238 533	Sharp-tailed Sandpiper	
161 628	Pacific Eider	1 00	239 531	Pectoral Sandpiper	
162 629	King Eider	1 75	240 536	White-rumped Sandpiper	
163 630	American Scoter	2 00	241 537	Baird's Sandpiper	2 00
[164]631	Velvet Scoter	75	242 538	Least Sandpiper	2 00
165 632	White-winged Scoter		242.1	Long-toed Stint	
166 633	Surf Scoter	1 00	[243]539	Dunlin	25
167 634	Ruddy Duck	50	243a 539a	Red-backed Sandpiper	
[168]635	Masked Duck		244 540	Curlew Sandpiper	
169 591a	Lesser Snow Goose		[245]542	Spoon-bill Sandpiper	
169a 591	Greater Snow Goose		246 541	Semipalmated Sandpiper	
169.1 530	Blue Goose		247 541a	Western Sandpiper	2 00
170 592	Ross's Snow Goose		248 542	Sanderling	
[171]593	White-fronted Goose	1 50	249 543	Marbled Godwit	1 25
171a 593a	Amer. White-fronted Goose	2 50	250 544	Pacific Godwit	
172 594	Canada Goose	1 00	251 545	Hudsonian Godwit	
172a 594a	Hutchin's Goose	1 00	[252]546	Black-tailed Godwit	50
172b 594b	White-cheeked Goose	4 00	[253]547	Green-shank	2 50
172c 594b	Cackling Goose		254 548	Greater Yellow-legs	
173 595	Brant		255 549	Yellow-legs	3 00
174 596	Black Brant		256 550	Solitary Sandpiper	
[175]597	Barnacle Goose		[257]551	Green Sandpiper	2 00
176 598	Emperor Goose		258 552	Willet	40
177 599	Black-bellied Tree-duck	3 50	258a 552	Western Willet	40
178 600	Fulvous Tree-duck	1 75	259 553	Wandering Tattler	
[179]586	Whooping Swan	1 50	[260]554	Ruff	20
180 588	Whistling Swan	2 00	261 555	Barranlian Sandpiper	40
181 589	Trumpeter Swan	4 00	262 556	Buff-breasted Sandpiper	
182 585	American Flamingo	1 00	263 557	Spotted Sandpiper	15
183 505	Roseate Spoonbill	1 00	264 558	Long-billed Curlew	75
184 501	White Ibis	35	265 559	Hudsonian Curlew	
[185]502	Scarlet Ibis		266 560	E-kimo Curlew	
186 503	Glossy Ibis	25	[267]561	Whimbrel	40
187 504	White-faced Glossy Ibis	1 25	[268]562	Bristle-thighed Curlew	
188 500	Wood Ibis	1 00	[269]512	Lapwing	15
[189]499	Jabiru		270 513	Black-bellied Plover	2 25
190 497	American Bittern	1 25	[271]514	Golden Plover	40
191 498	Least Bittern	20	272 515	American Golden Plover	1 50
191.1	Cory's Least Bittern		272a 515a	Pacific Golden Plover	
192 486	Great White Heron	1 25	273 516	Killdeer	20
193	Ward's Heron	40	274 517	Semipalmated Plover	1 00
194 487	Great Blue Heron	20	275 518	Ring Plover	20
[195]488	European Blue Heron	20	[276]519	Little Ring Plover	25
196 489	American Egret	25	277 520	Piping Plover	50
197 490	Snowy Heron	15	277a 520a	Belted Piping Plover	75
198 491	Reddish Egret	40	278 521	Snowy Plover	75
199 492	Louisiana Heron	10	[279]	Mongolian Plover	
200 493	Little Blue Heron	10	280 522	Wilson's Plover	25
201 494	Green Heron	10	281 523	Mountain Plover	1 25
201a	Frazar's Green Heron		282 511	Surf Bird	
202 495	Black-crowned Night Heron	10	283 500	Turnstone	75
203 496	Yellow-crowned Night Heron	25	284 519	Black Turnstone	

285]	596	Oyster-catcher	42	25
286	597	American Oyster-catcher	70	
286.1		Razor's Oyster-catcher		
287	598	Black Oyster-catcher		
[288]	598	Mexican Jacana	10	
289	480	Bob-white	15	
289a	480a	Florida Bob-white	10	
289b	480b	Texas Bob-white		
289c		Cuban Bob-white		
291		Masked Bob-white		
292	481	Mountain Partridge	90	
292a	481a	Plumed Partridge	90	
293	484	Scaled Partridge	50	
293a		Chestnut-bellied Scaled Partridge	75	
294]	482	California Partridge	10	
294a		Valley Partridge	20	
295	483	Gambel's Partridge	25	
296	485	Massena Partridge		
297	471	Dusky Grouse	1 50	
297a	471a	Sooty Grouse	1 75	
297b	471b	Richardson's Grouse		
298	472	Canada Grouse	1 00	
299	472a	Franklin's Grouse		
300	473	Ruffed Grouse	15	
300a		Canadian Ruffed Grouse		
300b	473a	Gray Ruffed Grouse	50	
300c	473b	Oregon Ruffed Grouse	75	
301	474	Willow Ptarmigan		
301a		Allen's Ptarmigan	1 00	
302	475	Rock Ptarmigan		
302a		Reinhardt's Ptarmigan		
302b		Nelson's Ptarmigan		
302c		Turner's Ptarmigan		
303		Welch's Ptarmigan		
304	476	White-tailed Ptarmigan	20	
305	477	Prairie Hen		
306	477	Heath Hen		
307	477a	Lesser Prairie Hen	75	
308	478	Sharp-tailed Grouse	60	
308a	478a	Columb. Sharp-tailed Grouse	75	
308b		Prairie Sharp-tailed Grouse	50	
309	479	Sage Grouse	75	
310	470a	Wild Turkey	1 00	
310a	470	Mexican Turkey	1 50	
311	469	Chachalaca	2 00	
312	456	Band-tailed Pigeon		
312a		Viosea's Pigeon	2 00	
313	457	Red-billed Pigeon		
314	458	White-crowned Pigeon	2 00	
315	459	Passenger Pigeon	05	
316	460	Mourning Dove		
317	462	Zenaida Dove	30	
318	463	White-fronted Dove	25	
319	464	White-winged Dove	2 00	
320	465	Ground Dove	75	
320a	465	Mexican Ground Dove		
321	466	Inca Dove		
[322]	467	Key West Quail-Dove		
[323]	468	Blue-headed Quail Dove		
324	453	California Vulture	75	
325	454	Turkey Vulture	75	
326	455	Black Vulture	12 00	
327	426	Swallow-tailed Kite	3 00	
328	427	White-tailed Kite	10 00	
329	428	Mississippi Kite		
330	429	Everglade Kite	40	
331	430	Marsh Hawk	1 00	
332	432	Sharp-shinned Hawk	20	
333	431	Cooper's Hawk	1 50	
334	433	American Goshawk		
334a	433a	Western Goshawk	75	
335	434	Harris's Hawk	55	
[336]	435	European Buzzard	60	
337	436	Red-tailed Hawk	75	
337a	436a	Krider's Hawk		
337b	436b	Western Red-tail		
337c	436c	Saint Lucas Red-tail		
338	438	Harlan's Hawk	50	
339	439	Red-shouldered Hawk	1 50	
339a		Florida Red-shouldered Hawk	1 00	
339b	439a	Red-bellied Hawk		
340	440	Zone-tailed Hawk	1 50	
341	441	White-tailed Hawk	75	
342	442	Swainson's Hawk	1 25	
343	443	Broad-winged Hawk		
[344]		Short-tailed Hawk	2 50	
345	444	Mexican Black Hawk		
346	445	Mexican Goshawk		
[347]		Rough-legged Hawk		

347a	447	Amer. Rough-legged Hawk	\$ 2 00
348	448	Ferruginous Rough-leg	2 00
349	449	Golden Eagle	5 00
[350]	450	Harpy Eagle	
[351]	452	Gray Sea Eagle	2 00
352	451	Bald Eagle	5 00
353	412	White Gyrfalcon	
354	412a	Gray Gyrfalcon	
354a	412b	Gyrfalcon	
354b	412c	Black Gyrfalcon	
355	413	Prairie Falcon	1 50
356	414	Duck Hawk	3 00
356a	414a	Peale's Falcon	
357	417	Pigeon Hawk	3 00
357a	417a	Black Merlin	
358	418	Richardson's Merlin	
[358.1]		Merlin	50
359	419	Aplomado Falcon	
359.1	422	Kestrel	25
360	420	American Sparrow Hawk	25
[361]	421	Cuban Sparrow Hawk	
362	423	Andulon's Caracara	1 25
363	424	Guadalupe Caracara	
364	425	American O prey	50
365	394	American Barn Owl	30
366	395	American Long-eared Owl	35
367	3 6	Short-eared Owl	1 25
368	397	Barred Owl	1 00
368a	397a	Florida Barred Owl	1 00
369	398	Spotted Owl	
370	399	Great Gray Owl	
[370a]	399a	Lapp Owl	3 00
371	400	Richardson's Owl	
372	401	Saw-whet Owl	3 00
373	402	Screech Owl	40
373a	402a	Florida Screech Owl	1 00
373b	402b	Texas Screech Owl	50
373c		California Screech Owl	50
373d	402d	Kennicott's Screech Owl	
373e	402e	Rocky Mountain Screech Owl	
373f	403	Mexican Screech Owl	
374	404	Flammulated Screech Owl	
375	405	Great Horned Owl	1 25
375a	405a	Western Horned Owl	1 25
375b	405b	Arctic Horned Owl	
375c	405c	Dusky Horned Owl	
376	406	Snowy Owl	1 00
[377]	407a	Hawk Owl	
377a	407	American Hawk Owl	
378	408	Burrowing Owl	25
378a	408a	Florida Burrowing Owl	4 00
379	409	Pygmy Owl	
379a	409	California Pygmy Owl	
379.1		Hoskin's Pygmy Owl	
380	410	Ferruginous Pygmy Owl	
381	411	Elt Owl	2 00
382	392	Carolina Paroquet	
[383]	389	Ani	1 00
384	390	Groove-billed Ani	25
385	385	Road-runner	
386	386	Mangrove Cuckoo	
386a	386	Maynard's Cuckoo	10
387	387	Yellow-billed Cuckoo	25
387a	387	California Cuckoo	12
388	388	Black-billed Cuckoo	
[389]	384	Coppery-tailed Trogon	20
390	382	Belted Kingfisher	
391	383	Texas Kingfisher	
392	379	Ivory-billed Woodpecker	50
393	360	Hairy Woodpecker	
393a	360a	Northern Hairy Woodpecker	
393b	360	Southern Hairy Woodpecker	
393c	360b	Harris's Woodpecker	
393d	360b	Cabani's Woodpecker	20
394	361	Downy Woodpecker	50
394a	361a	Gairdner's Woodpecker	
394b		Snoopy Woodpecker	1 25
395	362	Red-cockaded Woodpecker	1 25
396	363	Baird's Woodpecker	
396a	363a	Saint Lucas Woodpecker	
397	364	Nuttall's Woodpecker	
398	365	Arizona Woodpecker	
399	366	White-headed Woodpecker	
400	267	Arctic Three-toed Woodpecker	
401	368	Am. Three-toed Woodpecker	
401a		Alaskan Three-toed Woodpecker	
401b	368a	Alpine Three-toed Woodpecker	
402	369	Yellow-bellied Sapsucker	40
402a	369a	Red-naped Sapsucker	1 00
403	369b	Red-breasted Sapsucker	1 50

404	370	Williamson's Sapsucker	\$1 00
405	371	Pileated Woodpecker	1 00
406	375	Red-headed Woodpecker	08
407	377	Californian Woodpecker	30
407a	377a	Narrow-fronted Woodpecker	
408	376	Lewis's Woodpecker	40
409	372	Red-bellied Woodpecker	30
410	373	Golden-fronted Woodpecker	75
411	374	Gila Woodpecker	1 00
412	378	Flicker	05
413	378b	Red shafted Flicker	10
413a		Nor. ave. tern Flicker	25
414	379	Gilded Flicker	
415	380	Guadalupe Flicker	
416	353	Chuck-will's-widow	1 70
417	354	Whip-poor-will	1 50
417a		Stephen's Whip-poor-will	
418	355	Poor-will	
418a	355	Frosted Poor-will	
418b	355	California Poor-will	
419	356	Parouquet	4 00
420	357	Nighthawk	40
420a	357a	Western Nighthawk	50
420b	357b	Florida Nighthawk	1 00
421	358	Texan Nighthawk	50
422	350	Black Swift	
423	351	Chimney Swift	15
424	352	Vaux's Swift	
425	349	White-throated Swift	
426	334	Rivoli Hummingbird	
427		Blue-throated Hummingbird	
428	335	Ruby-throated Hummingbird	60
429	336	Black-chinned Hummingbird	75
429.1		Violet-throated Hummingbird	
430	337	Costa's Hummingbird	1 00
431	333	Anna's Hummingbird	50
431.1		Flore's Hummingbird	
432	330	Broad-tailed Hummingbird	1 25
433	340	Rufous Hummingbird	60
434	341	Allen's Hummingbird	75
435	342	Heloise's Hummingbird	
436	343	Calliope Hummingbird	
437	344	Lacifer Hummingbird	
438	345	Reffler's Hummingbird	
439	346	Buff-bellied Hummingbird	
440	347	Xantus's Hummingbird	
441	348	Broad-billed Hummingbird	
[442]	302	Fork-tailed Flycatcher	10
443	301	Scissor-tailed Flycatcher	03
444	304	Kingbird	40
445	303	Gray Kingbird	
446	305	Couch's Kingbird	08
447	306	Arkansas Kingbird	25
448	307	Cassin's Kingbird	
449	308	Derby Flycatcher	
[450]	309	Giraud's Flycatcher	
451	310	Sulphur-bellied Flycatcher	12
452	312	Crested Flycatcher	75
453	311	Mexican Crested Flycatcher	
453a		Arizona Crested Flycatcher	25
454	313	Ash-throated Flycatcher	
[455]	314	Lawrence's Flycatcher	
455a		Olivaceous Flycatcher	05
456	315	Phoebe	20
457	316	Say's Phoebe	20
458	317	Black Phoebe	1 50
459	318	Olive-sided Flycatcher	
460	319	Cone's Flycatcher	15
461	320	Wood Pewee	20
462	321	Western Wood Pewee	75
463	322	Yellow-bellied Flycatcher	25
464	323	Western Flycatcher	
464.1		St. Lucas Flycatcher	20
465	324	Acadian Flycatcher	40
466	325	Little Flycatcher	20
466a	325a	Trall's Flycatcher	10
467	326	Least Flycatcher	1 00
468	327	Hammond's Flycatcher	1 50
469	328	Wright's Flycatcher	
[470]	329	Fulvous Flycatcher	
470a	329a	Buff-breasted Flycatcher	1 00
471	330	Vermilion Flycatcher	
472	331	Beardless Flycatcher	
472a		Ridgway's Flycatcher	12
[473]	299	Skylark	25
474	300	Horned Lark	
474a	300a	Pallid Horned Lark	20
474b		Prairie Horned Lark	
474c		Desert Horned Lark	

474d		Texan Horned Lark	\$ 35
474e	300b	Mexican Horned Lark	
474f		Ruddy Horned Lark	35
474g		Streaked Horned Lark	
475	286	American Magpie	25
476	287	Yellow-billed Magpie	75
477	289	Blue Jay	05
477a		Florida Blue Jay	50
478	290	Steller's Jay	
478.1		Coast Jay	
478a	290a	Blue-fronted Jay	1 00
478b	290b	Long-crested Jay	1 00
478c	290c	Black-headed Jay	1 00
479	291	Florida Jay	1 50
480	292	Woodhouse's Jay	75
481	293	California Jay	25
481a	293	Xantus's Jay	
481.1		Santa Cruz Island Jay	
482	295	Arizona Jay	
483	296	Green Jay	1 25
484	297	Canada Jay	
484a	297a	Rocky Mountain Jay	
484b	297b	Alaskan Jay	
484c		Labrador Jay	
485	298	Oregon Jay	
486	280	American Raven	1 50
486a	280	Northern Raven	1 50
487	281	White-necked Raven	1 40
488	282	American Crow	05
488a	282a	Florida Crow	50
489	282b	Northwest Crow	50
490	283	Fish Crow	25
491	284	Clarke's Nutcracker	
492	285	Pinon Jay	1 50
[493]	279	Starling	10
494	257	Bobolink	20
494a		Western Bobolink	50
495	258	Cowbird	03
495a	258a	Dwarf Cowbird	20
496	259	Bronzed Cowbird	60
497	260	Yellow-headed Blackbird	05
498	261	Red-winged Blackbird	02
498a	261	Sonoran Red-wing	
498b	261	Bahaman Red-wing	
499	261a	Bicolored Blackbird	10
500	262	Tricolored Blackbird	20
501	263	Meadowlark	12
501a	263a	Mexican Meadowlark	25
501b	264	Western Meadowlark	12
[502]	265	Troupial	
503	266	Audubon's Oriole	1 50
504	268	Scott's Oriole	1 50
505	269	Hooded Oriole	50
505a		Arizona Hooded Oriole	50
506	270	Orchard Oriole	19
507	271	Baltimore Oriole	10
508	272	Bullock's Oriole	15
509	273	Rusty Blackbird	75
510	274	Brewer's Blackbird	05
511	278	Purple Grackle	14
511a	278a	Florida Grackle	10
511b	278b	Bronzed Grackle	04
512	275	Great-tailed Grackle	20
513	277	Boat-tailed Grackle	10
514	165	Evening Grosbeak	
515	166	Pine Grosbeak	
[516]	167	Cassin's Bullfinch	
517	168	Purple Finch	15
517a	168a	California Purple Finch	40
518	169	Cassin's Purple Finch	75
519	170	House Finch	06
519c	170a	St. Lucas House Finch	06
520	171	Guadalupe House Finch	06
521	172	American Crossbill	
521a	172a	Mexican Crossbill	
522	173	White-winged Crossbill	
523	174	Aleutian Leucosticte	
524	175	Gray-crowned Leucosticte	
524a	175a	Hepburn's Leucosticte	
525	176	Black Leucosticte	
526	177	Brown-capped Leucosticte	
527	178	Greenland Redpoll	75
527a	178a	Hairy Redpoll	75
528	179	Redpoll	50
528a	179a	Holboell's Redpoll	
528b	179b	Greater Redpoll	
529	181	American Goldfinch	08
530	182	Arkansas Goldfinch	20
530a	182a	Arizona Goldfinch	30
530b	182b	Mexican Goldfinch	

531	183	Lawrence's Goldfinch	\$ 25	587	237	Towhee	\$ 10
532	184	Black-headed Goldfinch		587a	237a	White-eyed Towhee	25
533	185	Pine Siskin	1 50	588	238	Arctic Towhee	
534	186	Snowflake	50	588a	238a	Spurred Towhee	25
534a	186	Pyrrhuloxia Snowflake		588b	238b	Oregon Towhee	
535		McKay's Snowflake		539	228c	Guadalupe Towhee	
536	187	Lupland Longspur	75	539	239	Green-tailed Towhee	
537	188	Smith's Longspur		591	240	Canon Towhee	1 00
538	189	Chestnut-collared Longspur	75	591a	240a	St. Lucas Towhee	
539	190	McCown's Longspur		511b	210b	Californian Towhee	08
540	191	Grass Finch	05	592	241	Abert's Towhee	75
540a	191a	Western Vesper Sparrow	15	593	242	Cardinal	05
540b	191a	Oregon Vesper Sparrow		593a	242a	Arizona Cardinal	
541	192	Ipswich Sparrow		593b	242b	St. Lucas Cardinal	
542	193	Sandwich Sparrow		594	243	Texas Cardinal	
542a	193a	Savanna Sparrow	12	544a	213	Arizona Pyrrhuloxia	
542b	193b	Western Savanna Sparrow	20	544b	213	St. Lucas Pyrrhuloxia	
542c	191	Bryant's Marsh Sparrow		595	244	Rose-breasted Grosbeak	15
543	194	Belding's Marsh Sparrow		596	245	Black-headed Grosbeak	26
544	196	Large-billed Sparrow		597	246	Blue Grosbeak	25
544a	195	St. Lucas Sparrow		597a	246	Western Blue Grosbeak	25
545	191	Burd's Sparrow		598	248	Indigo Bunting	08
546	198	Yellow-winged Sparrow	20	539	249	Lazuli Bunting	20
546a	191a	West. Yellow-winged Sparrow	25	600	259	Varied Bunting	
547	199	Henslow's Sparrow		600a	259	Beautiful Bunting	
548	200	Leconte's Sparrow		601	251	Painted Bunting	10
549	201	Sharp-tailed Sparrow	35	602	252	Sharpe's Seed-eater	
549a	201a	Nelson's Sparrow		603	253	Grassquit	75
549b	201	Acadian Sharp-tailed Sparrow		[603.1]		Melodious Grassquit	
550	202	Seaside Sparrow	25	604	254	Black-throated Bunting	
550a	202	Scott's Seaside Sparrow		605	256	Lark Bunting	05
550b	202	Texas Seaside Sparrow		606	160	Blue-headed Euphonia	50
551	203	Dusky Seaside Sparrow		607	162	Louisiana Tanager	
552	204	Lark Sparrow	05	[607.1]		Gray's Tanager	1 00
552a	204a	Western Lark Sparrow	05	608	161	Scarlet Tanager	
553	205	Harris's Sparrow		609	163	Hepatic Tanager	25
554	206	White-crowned Sparrow		610	164	Sunamer Tanager	
555	207a	Intermediate Sparrow		610a	164a	Cooper's Tanager	20
556	207	Gambel's Sparrow	25	611	152	Purple Martin	
557	208	Golden-crowned Sparrow		611a		Western Martin	15
558	200	White-Throated Sparrow	35	[611.1]	[152a]	Cuban Martin	
559	210	Tree Sparrow		612	153	Cliff Swallow	40
559a	210	Western Tree Sparrow		613	154	Barn Swallow	04
560	211	Chipping Sparrow	02	614	155	Tree Swallow	05
560a	211a	Western Chipping Sparrow	10	615	156	Violet-Green Swallow	15
561	212	Clay-colored Sparrow	40	616	157	Bank Swallow	50
562	213	Brewer's Sparrow	35	617	158	Rough-winged Swallow	04
563	214	Field Sparrow	04	618	150	Bohemian Waxwing	1 20
563a		Western Field Sparrow		619	151	Cedar Waxwing	50
564		Worthen's Sparrow		620	26	Phainopepla	10
565	215	Black-chinned Sparrow	75	621	148	Northern Shrike	50
566	216	White-winged Junco		622	149	Loggerhead Shrike	75
567	217	Slate-colored Junco	20	622a	149a	White-rumped Shrike	15
567a	218	Oregon Junco	50	622b	149a	California Shrike	08
567.1	217	Carolina Junco		[623]	137	Black-whiskered Vireo	08
568	219	Pink-sided Junco		624	135	Red-eyed Vireo	
569	220	Gray-headed Junco		625	136	Yellow-green Vireo	10
570	222	Arizona Junco		626	138	Philadelphia Vireo	
570a	221	Red-backed Junco		627	139	139a Warbling Vireo	20
571		Baird's Junco		628	140	Yellow-throated Vireo	35
572	223	Guadalupe Junco		629	141	Blue-headed Vireo	60
573	224	Black-throated Sparrow	50	629a	141a	Cassin's Vireo	
574	225	Bell's Sparrow		629b	141b	Plumbeous Vireo	
574a	223a	Sage Sparrow		624e	141	Mountain Solitary Vireo	
575	226	Pine-woods Sparrow		630	142	Black-capped Vireo	1 00
575a	226a	Bachman's Sparrow		631	143	White-eyed Vireo	20
576	227	Arizona Sparrow		631a		Key West Vireo	
577		Mexican Sparrow		632	144	Hutton's Vireo	
578	228	Cassin's Sparrow		632a		Stephen's Vireo	
579	229	Rufous-winged Sparrow		633	145	Bell's Vireo	
580	230	Rufous-crowned Sparrow		633a	146	Least Vireo	15
580a	230a	Boucard's Sparrow		624	147	Gray Vireo	
580b		Rock Sparrow		635	159	Bahama Honey Creeper	
581	231	Song Sparrow	02	636	147a	Black and White Warbler	50
581a	231a	Desert Song Sparrow	50	637	75	Prothonotary Warbler	30
581b	231a	Mountain Song Sparrow	50	638	76	Swainson's Warbler	1 50
581c	231b	Heermann's Song Sparrow	12	639	77	Worm-eating Warbler	1 00
581d	231c	Samuel's Song Sparrow	08	640	78	Bachman's Warbler	
581e	231d	Rusty Song Sparrow	30	641	79	Blue-winged Warbler	2 90
581f	231e	Sooty Song Sparrow		642	81	Golden-winged Warbler	75
581g		Brown's Song Sparrow		643	83	Lucy's Warbler	
582	232	Alutian Song Sparrow		644	84	Virginia's Warbler	
583	234	Lincoln's Sparrow		645	85	Nashville Warbler	
583a		Forbush's Sparrow		645a	85	Calaveras Warbler	75
584	233	Swamp Sparrow	15	646	86	Orange-crowned Warbler	
585	235	Fox Sparrow		646a	86a	Lutescent Warbler	
585a	235a	Townsend's Sparrow		647	87	Tennessee Warbler	75
585b	235b	Thick-billed Sparrow		648	88	Parula Warbler	
585c	235c	Slate-colored Sparrow		649	89a	Sennett's Warbler	25
586	236	Texas Sparrow	75	650	90	Cape May Warbler	

651	92	Olive Warbler	46
652	93	Yellow Warbler	05
652a	93	Sonora Yellow Warbler	50
653		Mangrove Warbler	
654	91	Black-throated Blue Warbler	75
655	95	Myrtle Warbler	1 00
655	93	Audubon's Warbler	2 00
657	97	Magnolia Warbler	50
658	93	Cerulean Warbler	
659	90	Chestnut-sided Warbler	20
659	130	Bay-breasted Warbler	
661	101	Black-poll Warbler	75
662	102	Blackburnian Warbler	
663	103	Yellow-throated Warbler	
663a	103a	Sycamore Warbler	
664	104	Grace's Warbler	
665	105	Black-throated Gray Warbler	
666	105	Golden-cheeked Warbler	
667	107	Black-throated Green Warbler	75
668	108	Townsend's Warbler	
669	110	Hermit Warbler	
670	110	Kirkland's Warbler	
671	111	Pine Warbler	50
672	113	Palm Warbler	
672a	113a	Yellow Palm Warbler	
673	114	Prairie Warbler	50
674	115	Oven-bird	15
675	116	Water-Thrush	75
675a	116a	Grinnell's Water-Thrush	
676	117	Louisiana Water-Thrush	50
677	119	Kentucky Warbler	1 00
678	118	Connecticut Warbler	
679	120	Mourning Warbler	
680	121	Macgillivray's Warbler	1 00
681	122	Maryland Yellow-throat	15
681a	122	Western Yellow-throat	25
682		Belding's Yellow-throat	
683	123	Yellow-breasted Chat	10
683a	123a	Long-tailed Chat	15
684	124	Hooded Warbler	50
685	125	Wilson's Warbler	1 50
685a	125a	Pileolated Warbler	75
686	127	Canadian Warbler	1 50
687	128	American Redstart	15
688	129	Painted Redstart	
[689]	130	Red-bellied Redstart	
690	131	Red-faced Warbler	
[691]	132	Red Warbler	
[692]	133	Brasher's Warbler	
[693]	134	Bell's Warbler	
[694]	69	White Wagtail	10
[695]		Swinhoe's Wagtail	
696	70	Siberian Yellow Wagtail	
697	71	American Pipit	75
[698]	72	Meadow Pipit	10
[699]		Red-throated Pipit	75
700	73	Sprague's Pipit	
701	19	American Dipper	1 00
702	10	Sage Thrasher	75
703	11	Mockingbird	05
704	12	Catbird	02
705	13	Brown Thrasher	05
706	13a	Texas Thrasher	30
707	15	Curve-billed Thrasher	25
707a	15a	Palmer's Thrasher	1 00
708	14a	Bendire's Thrasher	1 00
709	14	St. Lucas Thrasher	
710	16	Californian Thrasher	25
711	16a	Leconte's Thrasher	2 00
712	17	Crissal Thrasher	50
713	55	Cactus Wren	12
714	57	St. Lucas Cactus Wren	
715	53	Rock Wren	60
716	58a	Guadalupe Rock Wren	
[717]	59	White-throated Wren	
717a	59a	Canon Wren	60
717b	59	Dotted Canon Wren	
718	60	Carolina Wren	15
718a	60b	Florida Wren	75
719	61	Bewick's Wren	50
719a	61a	Vigor's Wren	25
719b	61b	Baird's Wren	25
720	62	Guadalupe Wren	
721	63	House Wren	06
721a	63a	Parkman's Wren	25
721b	63a	Western House Wren	16
722	65	Winter Wren	
722a	65a	Western Winter Wren	
723	66	Alaskan Wren	
724	68	Short-billed Marsh Wren	75

725	67	Long-billed Marsh Wren	\$ 06
725a	67a	Tule Wren	15
725.1		Marian's Marsh Wren	
726	53	Brown Creeper	75
726a	52a	Mexican Creeper	
726b	55	Rocky Mountain Creeper	
726c	55	California Creeper	
727	51	White-breasted Nuthatch	30
727a	51a	Slender-billed Nuthatch	75
728	52	Red-breasted Nuthatch	1 00
729	53	Brown-headed Nuthatch	0
730	54	Pygmy Nuthatch	75
731	36	Tufted Titmouse	35
731a		Texas Tufted Titmouse	
732	37	Black-crowned Titmouse	75
733	38	Plain Titmouse	50
733a	38	Gray Titmouse	
733b		Ashy Titmouse	
734	39	Bridled Titmouse	
735	41	Chickadee	12
735a	41a	Long-tailed Chickadee	75
735b	41b	Oregon Chickadee	0
736	42	Carolina Chickadee	15
736a		Plumbeous Chickadee	
[737]	43	Mexican Chickadee	
738	40	Mountain Chickadee	
739	41	Siberian Chickadee	
740	45	Hudsonian Chickadee	1 50
740a		Kowak Chickadee	
741	46	Chestnut-backed Chickadee	
741a	46a	Californian Chickadee	
742	35	Wren-Tit	75
742a	35	Pallid Wren-Tit	1 00
743	47	Bush-Tit	50
743a	47	Californian Bush-Tit	15
743b		Grinda's Bush-Tit	
744	48	Lead-colored Bush-Tit	
744.1		Santa Rita Bush-Tit	
745	40	Lloyd's Bush-Tit	
746	50	Verdin, Yellow-headed Tit	50
747	34	Kennicott's Willow Warbler	
748	33	Golden-crowned Kinglet	1 00
748a	33a	West. Gold.-crowned Kinglet	
749	39	Ruby-crowned Kinglet	2 00
750	31	Dusky Kinglet	
751	27	Blue-gray Gnatcatcher	20
752	28	Plumbeous Gnatcatcher	1 00
753	20	Black-tailed Gnatcatcher	65
754	25	Townsend's Solitaire	1 50
755	1	Wood Thrush	06
756	2	Wilson's Thrush	15
756a		Willow Thrush	
757	3	Gray-cheeked Thrush	
757a	3	Bicknell's Thrush	
758	4	Russet-backed Thrush	36
758a	4a	Olive-backed Thrush	40
759	5	Dwarf Hermit Thrush	
759a	5a	Audubon's Hermit Thrush	
759b	5b	Hermit Thrush	40
[760]	6	Red-winged Thrush	35
761	7	American Robin	02
761a	7a	Western Robin	15
762	8	St. Lucas Robin	
763	9	Varied Thrush	
[764]	20	Red-spotted Bluethroat	60
765	21	Wheatear	10
766	22	Bluebird	62
766a		Azure Bluebird	
767	23	Western Bluebird	15
768	24	Mountain Bluebird	15
INTRODUCED SPECIES.			
		English Pheasant	25
		Ring Pheasant	
		Green Pheasant	
		Silver Pheasant	25
		Golden Pheasant	25
		Black Grouse	60
		European Goldfinch	20
		English Sparrow	04
		European Tree Sparrow	15
		Skylark	12
SUNDRIES.			
		African Ostrich, small	1 15
		" " large	1 10
		East African Ostrich	2 00
		Emu	2 00
		Rhea	3 00
		Alligator	20
		Turtles	50
		Snakes	10

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Which holds good until Jan. 1st 1890. Is mailed you with this Oologist. Any of our old subscribers desiring to renew their subscription for 1890 in connection with any of the Premiums offered therein, can do so, and all new subscriptions received before Jan. 1st, will be entitled to the months of Nov. and Dec. gratis. A new premium list will be issued in time to mail with either the Dec. or Jan. Oologist. Our patrons will save about ten cents by renewing from the one mailed with this issue. The following premiums we can no longer furnish:

- No. 45 Hand-book Agassiz. Ass'n
- 45 Reel Tap Line
- 82 Mineral Luskand
- 96-97 Oxidized, Leaf Plus
- 99 Shell Purse
- 119 Asparagus Roots
- 120 Cinnamon Vine
- 121 Strawberry Plants
- 122 The Niagara Grape
- 127 20 Books

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- 26 Book of Datas unperforated, with heavy Manila covers..... .25
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- " Lucky Tooth of Cod-Fish..... .07
- 39 Tarantula Nest..... .35
- 40 King Crab, small 10c; 4 to 6 in., 2c; 7 to 8 in..... .35
- 42 Sea Cushion..... .35
- 43 Sea Horse, from Italian Const..... .35
- 44 Club-spined Urchin..... .30
- 46 Sand Dollar..... .06
- " Startish 2 to 3 in..... .16
- " Sea Urchin, spines..... .15
- " " " no "..... .10
- 47 " " " "..... .15
- " " " with "..... .20
- 49 Caliper Rule..... .25
- " Colored Pencils..... .05
- 51 Sea Plume..... 10 to .35
- 52 Sea Fan, 6 in., 1 c; 12 in., 25c; extra large..... .35
- 53 Ivory Apple..... .25
- 56 Pod Pouchana Bean..... .06
- 57 Betel Nut..... .10
- " Red or Grey Sea Beans..... per doz. .03
- " Long Red or Brown-banded do..... each .40
- 58 Brazil-Nut Pod..... .25
- 59 Trilobite..... .20
- 62 3 Resurrection Plants..... .30
- 64 Field Notes '87..... .25
- 66 Sponges..... .15
- 67 Rose Coral..... .05 to .25
- " Organ Pipe..... .15
- " Barnacle..... .15
- 73 Three Semi Precious Stones..... .25
- 90 Spar Scarf Pin..... .25
- 91, 92, 93, 94, 95, Bangle Pins and Bracelets each..... .25
- 98 Sea Bean Initial Watch Charm..... .25
- 100 Magnifying Glass..... .10
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- 110 Jackknife..... .35
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- 113 Dictionary..... .25

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- 116 "Snapper" Sounder..... .15
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Vol. VI,

ALBION, N. Y., DEC., 1889.

No. 12

Exchanges and Wants.

Brief special announcements. "Wants." "Exchanges" inserted in this department for 25 cents per 25 words. Notices over 25 words charged at the rate of one-half cent per word. No notice inserted for less than 25 cents. Notices which are merely indirect methods of soliciting cash purchasers cannot be admitted to these columns under any circumstances. Terms, cash, with order.

CURIOS wanted for my museum. SEEBACH, Peru, Ills.

In the exchange of Allie R. Hutchinson, Gaines, N. Y., in Nov. Oölogist. Nos. 187, 187 and 228, should have been 181, 197 and 258.

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H. W. Davis, North Granville, N. Y. [y]

INSECTS,

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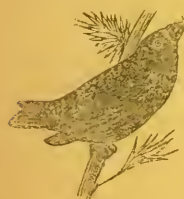
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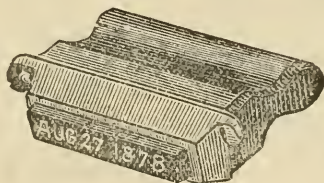
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THE OOLOGIST.

VOL. VI.

ALBION, N. Y., DEC., 1889.

NO. 12

Birds of Niagara County, N. Y.

We are indebted to J. L. Davidson, Esq., of Lockport, N. Y., for a reprinted list of the same, which prepared with annotations was for the *Forest and Stream*, September, 1889. It is a valuable paper and had we the space would reprint the same in the *Oologist*. Niagara county joins Orleans county on the west and the list in main is similar to the one published in the *Oologist* last May.

From Mr. Davison's list we take the following which will prove of interest to our readers:

In presenting the following list I do so knowing that it is not complete, as the 192 species given are only such as have come under my own observation within the past ten years. I think it is generally claimed that about 250 species occur in this vicinity. There are many sections of the county that I have not visited. In fact, most of my collecting has been confined to the central part. Among a collection of between 300 and 400 mounted specimens, 154 species are secured in the county. A few of the many species given as migrants may possibly remain through the summer, but I have found them only during migration.

FROM THE LIST OF BIRDS.

35. *Branta canadensis* (Linn.), Canada Goose (180).—A common migrant. Mr. Norman Pomeroy, living about four miles from Lockport, captured 13 a few years ago, which had alighted among his flock of tame geese during a severe storm, and all taking shelter in the barn, when the door was closed on them. They mated with his tame geese and he keeps a flock of 40 to 50 of the hybrid geese.

80. *Bubo virginianus* (Gmel.), Great

Horned Owl (375).—A common resident. Feb, 25, 1884, a live specimen was brought to my son to be mounted. It was killed by chloroform but not skinned for a week afterward. The body was a mass of fat, and my son wondering what it got to live on to keep in such good condition, thought he would make an inspection internally, and on cutting it open the knife passed through an egg just ready to be laid. Had she been kept alive she would have laid the egg during the day.

81. *Coccyzus erythrophthalmus* (Wils.). Black-billed Cuckoo (388).—A common summer resident. I have often found the eggs of this species in the nest of *C. americanus*, but only once have I found it in the nest of any other bird. June 17, 1882, I found a black-billed cuckoo and a mourning dove sitting on a robin's nest together. The cuckoo was the first to leave the nest. On securing the nest I found it contained two eggs of the cuckoo, two of the mourning dove and one robin egg. The robin had not quite finished the nest when the cuckoo took possession of it and filled it nearly full of rootlets, but the robin got in and laid one egg. Incubation had commenced in the robin and cuckoo eggs, but not in the mourning dove eggs. I have the nest and eggs in my collection. See *Forest and Stream*, Aug. 24, 1882, page 65. "A Strange Story." I am also quite certain that I have seen the black-billed and yellow-billed cuckoo feeding young in the same nest, an account of which was published in *Forest and Stream*, since when I have found a number of nests containing the eggs of both species, and have come to the conclusion that I was not mistaken in that observation. On Sept. 10, 1883, I found a nest of the black-billed cuckoo contain-

ing two young birds not more than one day out of the shell; the two previous nights we had severe frosts that destroyed vegetables.

101. *Empidonax acadicus* (Gmel.), Acadian Flycatcher (465).—A rare summer resident. June 14, 1887, I secured nest, eggs and female of this species. The nest is pensile, and composed of the fiber of thistle and dried grasses; a number of the latter hang from the nest, some as long as 18 inches. The nest is more shallow than that of the red-eyed vireo; outside measurement being 2.50 wide by 1.50 deep, inside 1.75 1.00. Eggs cream white with a few dark brown spots at large end. When I first saw the nest I took it for a wisp of grass caught on the limb, and should have passed it had I not seen the bird on the same limb.

116. *Loxia curvirostra minor* (Brehm.), American Crossbill (521).—An occasional spring visitor. On June 8, 1888, I secured a male specimen in a piece of heavy timbered wood. I concluded it was a "straggler," and did not look for its nest. On July 28 I saw another in the same place, but did not succeed in securing it, and I came to the conclusion that the male taken in June was of a pair breeding there.

148. *Vireo flavifrons* (Vieill.), Yellow-throated Vireo (628).—A rather rare summer resident. On June 8, 1888, I found a nest of this species, but was unable to get it.

150. *Mniotilta varia* (Linn.), Black and White Warbler (636).—A common migrant. June 14, 1888, I saw a male of this species and a male ruby-throated humming bird disputing as to the possession of a certain locality, and the humming bird "held the fort." As I had never before seen *M. varia* here later than the middle of May I concluded there must be a pair breeding, but I did not succeed in finding the nest.

155. *Dendroica caerulescens* (Gmel.), Black-throated Blue Warbler (654).—A

very common migrant. I think a few remain to breed as I have observed them in two instances as late as July 14 and 15.

158. *Dendroica cerulea* (Wils.), Cerulean Warbler (658).—Until the past season (1888) I have considered this a very rare migrant, having seen but two specimens, both males, in ten years collecting; but during the past season I found three nests, two of which I secured with three eggs each, and the two females taken as they left the nests. On Nov. 3 I sent to Capt. Chas. E. Bendire a nest and three eggs for the Smithsonian Institution collection, having learned that there was but one egg of this species the collection, and without data or locality. See *Iuk* for October, 1888, p. 439, "Breeding of *D. cerulea* in Niagara county, N. Y."

163. *Dendroica cirrens* (Gmel.), Black-throated Green Warbler (667).—A common migrant, and a few stop to breed. I have never yet found the nest and eggs but have seen the bird late in June, and on June 24, 1888, I found a young of this species unable to fly, the male parent being with it.

167. *Geothlypis philadelphia* (Wils.), Mounting Warbler (679).—A rare migrant. On June 8, 1888, I saw a male of this species and could have secured it, but thinking it had a nest near by I preferred watching it and to find its nest, but did not succeed. June 11 I again visited the same place and saw a female of this species, but after a search of three hours I failed to find the nest.

171. *Setophaga ruticilla* (Linn.), American Redstart (687).—A common resident. June 14, 1888, I found a pair of this species occupying an old nest of the red-eyed vireo. They had relined it, and laid two eggs; and a cowbird had added another. I put the female off the nest three times before I could believe it to be a redstart, as this species is generally so particular about its nest. I have never known a nest to be

occupied after I had put my hand into it while it was being built.

174. *Troglodytes aedon* (Vieill.), House Wren (721).—A summer resident. Since the advent of the English sparrow this species has become quite rare in the city. A few years ago we had two or three pairs breeding in our yard in boxes put up on the side of the barn and on apple trees, but they were driven off by the sparrows. Afterward I put up boxes with holes only large enough to admit the wrens, and for three years a pair have occupied one of them. After the young had left the nest the past season, I saw the male removing the nest from the box piece by piece; he would bring them out and drop them to the ground. After watching him a long time I thought I would assist him in his labor, and putting a ladder up into the tree, I opened the box and threw out the rest of the nest, and had barely reached the ground when the bird again entered the box, and a moment after it came out, and mounting a limb within two feet of the box, and stretching up its neck, poured forth his song of gratitude. Wondering what the effect would be, I picked up the nest, and mounting the ladder placed it on top of the box. Hardly had I reached the ground before he again attacked the nest, and it was not a minute before he had thrown it to the ground, but again mounting the limb finished his song, and departed, and we saw nothing more of our little friends. But we expect them to return next season, or why were they so particular to remove their old nest from the box?

The Shore Lark.

With us the Horned, or Shore Lark is one of the most interesting of birds, especially during migrations. This country seems to be a sort of middle ground over which the wave of Larks flow twice a year—once in the spring when

the birds go north to breed, and once again in the fall when they go into winter quarters farther south.

Although most of these birds spend winter and summer beyond the bounds of this country, there are some who always stay with us. These are few, indeed during July and August, but in winter they are comparatively common.

The Horned Lark is at home only on the ground and seldom perches higher than the fence. So well does its livery of black and red-brown resemble the clods among which it dwells that it is often difficult to locate the bird, even when within a few feet of it. This Lark has many favorite feeding grounds, which are changed with the seasons. In autumn they are oftenest to be found in fields of young wheat, but in winter, when fields are snowed under, they must resort to the bare places, and so are found on southern slopes, along the roadsides, etc., when the snow is not too deep or there is a crust. They are often found among the weed growths in old fields. In spring they go back to the wheat fields again and at this season spend much time in old pastures also.

When feeding the horned lark runs restlessly about much after the manner of the Snow Bunting. Sometimes a flock will alight on the edge of a field and, spreading out, feed across it in an orderly manner, taking wing for other fields when the fence is reached.

From this bird we have the first bird-song of the year. It is often heard early in January, fully a month and a half before the Bluebird. The song consists of a few creaky notes, not especially pleasing to the ear. *Quit, quit, quit, you stilly rig and get away*, it seems to say. The first three or four syllables being slowly and distinctly uttered and the rest somewhat hurriedly run together. However, like the faces and voices of certain people, this ditty sweetens on acquaintance and finally becomes a

sound of real pleasure.* Early in the year the song is uttered from the ground but as winter wanes and the influence of coming spring is felt, the birds become livelier and mount up into the air, sometimes nearly out of sight, singing for minutes together.

There is no record of the nest of the Horned Lark being found in this county, yet it is very apparent that they breed here. It is probable that the nest will be found in the near future, since many of our oologists are looking especially for it each spring.

W. N. C.

Binghamton, N. Y.

Incidents in Bird Life.

While taking a short walk one morning during the latter part of March, I noticed a conflict between a robin and a flock of cedar-waxwings. Snow still covered the ground and it was very difficult for the robin to obtain insects from the earth, so he had to seek elsewhere for his food. The first I noticed was the cedar-waxwings which were all on a tree in a private yard. They all seemed to be greatly excited, and were looking in the direction of a mountain ash which had many of last year's berries on it. At first I could not discover the cause of their excitement, but it soon became apparent when several of them flew towards the mountain ash, for a robin darted out from among the branches, where he had been eating berries, and chased them away. He would fly at one and peck at him and then at another until he was rid of all of them. He would then quietly resume his meal, I chased the robin away and he flew into a tree on the street. As soon as he was gone the whole flock of waxwings went for the berries as if they were very hungry, but no sooner had they started to eat than the robin charged in among them and the whole flock were obliged

to retreat before his savage pecks. Just then I was called away and when I returned a few hours later nothing was to be seen of either the robin or waxwings.

In the spring of '87 a phoebe built a nest in an old log house occupied by a farmer. He was away from home for a few days and when he returned the bird had her nest completed. She had entered the house through a crack above an imperfect fitting window. She laid three eggs. Whenever any one entered the room she would fly away but would return in a few minutes. As it was necessary to close the opening above the window, I obtained the eggs and nest. The phoebe then began to construct a nest in the cellar of the same house, but being disturbed here she abandoned it before it was finished.

I have noticed that whenever the eggs of a cat-bird are taken the birds destroy the nest and carry away some of the material, to construct a new nest, I think.

Gus. Rapp,

Milwaukee, Wis.

A Simple Contrivance.

When collecting eggs it has always bothered me until this summer, to find whether or not there were any eggs in a Woodpecker's nest. Of course it is an easy matter to break the hole away enough to see, but if there are no eggs in the nest, as is often the case, it makes one feel a little mean to have destroyed the poor bird's nest with no return. This summer it was suggested that I try a piece of looking-glass. I immediately procured a piece, one inch by two, and found it to be just the thing. By holding it in the top of the hole at the right angle, the eggs could be plainly seen in the bottom. I first tried this scheme on a flicker's nest, and although the hole was quite deep, it reflected enough light to discover seven eggs in the bottom.

Now if anyone can inform me as how to get eggs out without destroying the nest, and also how to tell when there are any eggs in a Kingfisher's nest, I would be much obliged if he would do so.

T. S. B.,

Northfield, Minn.

The Prairie Horne Lark.

This is a common species here and arrives before any other of our summer residents. It nests early, before the snow is fairly gone. I found a nest this season, '89, on the 29th of March, containing three fresh eggs. They rear at least two broods in a season, the first about time mentioned above and the second about the middle of June. Early in the spring they gather in large flocks and feed upon the wheat that has just been sown. From this they get the name of "Wheat Bird" in this locality. It also goes by the name of "Ground Bird" and "Snow Bird," the former from its nesting on the ground. A favorite nesting place is the growing corn. A slight hollow, beside a hill of corn or a clod, lined with grass serves as a nest. They also nest commonly on the prairie, but the nests are not so often found there as in the cornfield. The eggs are three to five in number, commonly four. In color they are hardly distinguishable from those of the Yellow-headed Blackbird. They are smaller, averaging about .83x.62 in. The general colors of this bird are dirty white underneath and grayish above, with a black patch at the throat. Above each eye is a tiny tuft of feathers which the bird can raise at will, and which when raised gives the bird the same appearance as a Horned Owl.

I have never taken note of its departure but I suppose it stays as late accordingly as it arrives early.

J. V. CRONE,
Marathon, Iowa.

Connecticut Notes.

May 18th, 1889, while on a collecting trip, I found a newly made nest of the Catbird, but as yet no eggs.

May 23, I again looked at the nest, and was surprised to find instead of a complete set, only a very small runt egg measuring .48x.37, of the same shade of green as ordinary eggs of this bird, and on blowing was found to contain no yolk. The bird to my knowledge laid no other eggs in that nest, the same day.

May 18, I found an incomplete set of four Flicker eggs in a hole in a hollow tree ten feet up.

May 24, but six days later, I went to the tree, and began pounding on it with a club, expecting to see the old bird fly out, but instead an old Flying Squirrel popped out and ran up the tree, closely followed by her four, half-grown young. The hole was nearly full of the fine bark and leaves comprising the squirrels nest, but the Flickers eggs were gone. I have found the following late nests this year: Yellow-billed Cuckoo, Fresh eggs, July 22, 4; Aug. 4th, 2; Aug. 18, 2; Aug. 26, 2, and 1 Black-billed. Cedar Waxwing Aug. 1, 4 fresh eggs, Aug. 29, 4 young. July 26 Cat bird 3 fresh; July 27 Mourning Dove, 2 fresh.

W. I. C.

Norwalk, Conn.

Death to the English Sparrow.

Saturday evening, July 13th a very heavy thunder-storm struck this city, proving very disastrous to the English Sparrow. Hundreds were drowned and carried down the gutters to the river while others were conveyed from yards and public grounds in wheelbarrows. Probably several thousands were drowned during the storm.

Yours Respectfully,

C. E. C.,
Davenport, Ia.

THE OOLOGIST

EDITED AND PUBLISHED MONTHLY

—BY—

FRANK H. LATTIN, - ALBION, N. Y.

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Jottings.

The OOLOGIST for 1890 will be what its patrons make it, and as in years past will virtually be edited by them. Should its pages fail to teem with interesting items and notes it will be because our patrons fail to send them in. The average number of copies printed of each issue of the OOLOGIST during the past year has been 2250 copies and it is safe to say that each issue has been read by over 2000 live collectors, each of which could relate some incident or could take from their note-book some item that would be of more than ordinary interest.

During 1890, we want these items and notes whether it be relating to the nesting of some rare species; something

unusual regarding our more common species, or whether it is advise, suggestions, receipts or descriptions of contrivances of value to the collector, we care not, only let it be something *new, original and interesting*. We do not want descriptions of common birds or the nestings of the same, these can be obtained in almost any book on the subject—White Bluebird Eggs—Spotted Robin Eggs—Runt Eggs—Double-yolked Eggs—Eggs on the ground—Long lists of birds or dates—have all been worn out and are of little interest to any one—every collector has either had, seen or at least heard of them.

The live collector wants *something new*; and this with the aid of its friends is what the OOLOGIST proposes to give its readers during 1890. It is a going to be "chuck" full of just such matter as every collector wants and needs. The present subscription list and the rate at which new subscriptions and renewals are now pouring in for 1890, silently, but surely, proves that the OOLOGIST is valued as it is, but with the aid and hearty co-operation of its readers, the publisher can make Vol. VII. so far a head of previous ones that comparison will be out of the question.

A copy of the "Wolverine Naturalist," hailing from Kalamazoo, Mich., edited by Morris Gibbs, M. D., "Scelopax," a well-known writer on Natural History, is before us. Should its publishers receive the financial encouragement from collectors that they deserve, its success is unquestionable.

GLEANINGS FROM OUR CORRESPONDENCE.

From a long list of notes from Mr. A. M. Linsley, of Northford, Conn., we take the following:

May 18th. Road-winged Hawk. Obtained 2 eggs from a nest in which there

was another with the youngster chipping the shell, one egg was rotten and the other had a young hawk inside that would have hatched in a week.

May 24th. Golden-crowned Thrush. Collected a set of five eggs and nest of this species, it was built in the *old nest* used last year by the same pair.

May 25th. Marsh Hawk. Found a fine set of five eggs to-day although a summer resident, it is hard to find many people that know about this Hawk, sometimes called "Fish Eagle," breeds also on salt meadows. Blue Jay resident throughout the year; found a fine set of five eggs of this bird to-day, this is my second set of eggs obtained in four years collecting.

May 27th. Great-crested Flycatcher. Obtained a fine set of seven fresh eggs.

May 30th. Canada Fly-catching Warbler. I found a nest containing five eggs of this species, in a raspberry bush in a pasture, the bird was very shy until after the set was completed, then I identified the male while on the nest.

June 12th. Black-billed Cuckoo. One egg three-fourths incubated from a nest in which there were two young birds with feathers on them; eggs of this and the Yellow-billed can be obtained, and I have found them from June 1st, till September 23rd.

Mr. L. also adds that on Aug. 27, 1888 he took a set of five fresh eggs of the Cedar Waxwing.

We are indebted to Mr. A. Darling, Simcor, Ont. for cleverly executed pencil-drawings of the Belted Kingfisher.

Mr. U. S. Grant, Minneapolis, Minn., will accept thanks for copies of his valuable articles, "Conchological Notes" and "Notes on the Molluscan Fauna of Minnesota" as issued in the annual report of the Geological and Natural History Survey of Minnesota in the years of 1885 and 1887 respectively.

C. C. T., Utica, N. Y., has a set of six eggs of the Black-billed Cuckoo which he collected during the past season.

Glen Gill, of Ottawa, Kans., writes that he has a beautiful set of two eggs of the Poor Will that he took near that place.

F. T. Darrow, Corning, Ia., writes that the Dickcissel or Black-throated Sparrow is commonly called "Whistling Sparrow" in his locality. He also writes: T. E. S., of this city, has a beautiful nest and set of four eggs of the Black-capped Chickadee. The nest is made of hair throughout, slightly hollowed on top in which lay the four eggs. There is a cover also made of hairs which covers the eggs when the bird was absent.

Geo. Lindsey, Sedalia, Mo., writes of successfully taking a nest with eggs of the Chimney Swift as follows: I took a small tin bucket filled with cotton, lowered it down the chimney and held it just under the nest, then taking a long pole (a rake handle will do) I broke the nest from the side of the chimney and all fell into the bucket of cotton. I drew them out of the chimney and found both nest and eggs in good condition.

W. B. Daley, Chatham, N. Y., writes:

I would like to know if the American Quail breeds in eastern New York. I have never seen the bird in Columbia County where I reside. But on October 2, 1889, while a friend and I were crossing a corn field, we found an egg of this Bird lying on the ground. It had the appearance of having been laid about the middle of the summer.

G. M. L., Malone, N. Y.:

The bird which you call "Hang Bird," "Hanging Bird" and "Wood Warbler," is one of the Vireos, doubtless the Red-eyed.

Many correspondents write us that the Shrike is frequently called the "Mouse Hawk" in their locality.

In regards to the various Shrikes, we would say that the common species of the South Atlantic States is the Loggerhead; of the Central United States, the White-rumped and of the California coast, the Cal. In many localities it requires an expert to say positively to which species a set of eggs may belong. e. j., I have found nests of both the White-rumped and Loggerhead in Orleans Co., N. Y., the former however being much the more common.

Neil F. Posson, Medina, N. Y. writes:

On the afternoon of July 29th, while in the vicinity of Sandusky, Cattaraugus county, I saw a single Slate-colored Junco. There was no mistake in the identity. Isn't it something rare to see Juncos in New York at this season of the year?

From an interesting article from Mr. G. F. Mims, of Edgefield, S. C., we quote as follows, in regards to the nesting of English Sparrows:

"One would think at first sight of an oak tree in town, that the contents of a barn had been emptied into it, so numerous are the nests."

In speaking of the Kingbird (possibly Gray Kingbird) he says:

"The nest of this bird is generally placed in "no-gittum" places, being on long slender limbs at an altitude that no one cares to trust his neck; therefore their eggs are very scarce in the South. I never got to but one of these nests in my life. You could not exactly call me getting to that one, for I had to procure an egg by means of a spoon attached to a long stick."

Marsh Hawk.

This well-known and interesting bird is a common resident of Michigan,

and in the southern counties I believe it remains throughout the year, as I have seen them in swamps in at least two of the winter months. During the spring and summer this bird may be seen sailing across the fields from six to fifteen feet above the ground in search of its prey, which consists of mice, small animals and those small birds which it so often finds nesting in its path. For this reason I am undecided whether its presence or absence would be the greater benefit to the farmer. However, I wish that ornithologists and oologists would more carefully note its food habits. In the first half of April in this section the male goes through those motions so peculiar to this species before the nesting place is selected. It will rise one hundred and fifty or two hundred feet in the air, and then seem to fall and turn a somersault in so doing, while at the same time it makes a cackling noise which is hard to describe. When it has dropped about twelve or fifteen feet, it again uses its wings and rises to its former level, then drops and keeps this up (sometimes I have noticed) till out of sight, but more frequently perhaps keeps up his zigzag course, slightly descending each fall till it arrives to the place where its mate sits.

During the latter half of April or first half of May, it is busily engaged in making its nest. The nesting site seems to be very different in different localities. A friend of mine found a nest in his wheat field while engaged in cutting his grain. By the first week in May the eggs are generally laid in this section, according to my observation. On the 24th of May, '89, I took a set of eggs of this bird which was the second it had laid this season. The nesting place of the birds had been the same for a number of years. It was over a tract of land containing perhaps two acres on one side of a tamarack marsh. The ground was covered by the

Leather-leaf, a bush which grows to the height of two to two and one-half feet, scattered about in this are shrubs and bushes which are somewhat higher. As I approached a rather thin clump of bushes a hawk flew up, and after going fifteen or twenty rods, wheeled about and made a bee line for me till within about a rod's distance then turned and uttered a cackle. This it repeated a few times but finding I did not scare worth a cent, quietly flew away to a perch where she could watch me.

When I reached the bushes I found the nest which was composed of dry hay, lain on some sticks. The exterior diameter was fifteen inches, while the interior was six inches and it was hollowed an inch and a half. It was placed on the ground and as yet I have never found one on any sort of a hummock. In the nest were five eggs of a dirty white color with a bluish tint. There were some indistinct spots on them of a brownish color, and I might say that only one egg out of twenty-two that I have collected, had real distinct natural spots.

The ground was very dry about the hawk's nest and had been plowed within ten rods of it last spring, and as all of the nests which I have examined were in comparatively dry places, I conclude that the spots on eggs so often spoken of by collectors were in many cases caused by their coming in contact with the wet material of the nest and thus stained, as the eggs of the Quail often are. The measurement of the five eggs are as follows: 1.80x1.40, 1.75x1.39, 1.80x1.39, 1.79x1.41, 1.78x1.41. According to my observation the Marsh Hawk will not lay the third time in one season. The number of eggs is generally five, sometimes four or six.

ALFRED W. COMFORT.
Tecumseh, Mich.

Trying to Hatch Rotten Eggs.

I noticed in the OOLOGIST sometime ago, some one speaking of finding a Red-tailed Hawk sitting on a nest which contained a single rotten egg. July 18th of this year ('89) I had occasion to cross a pasture early in the morning, and was not a little surprised to see a Yellow-shafted Flicker's head projecting from a hole in a dead tree fifteen feet up. Wondering what business a Flicker could have in a hole this time a year, I determined to see. So with the aid of a fence-rail and a little climbing I was soon able to see into the hole. Upon tearing a portion of the wood away I beheld five shiny eggs, and as it was rather late in the season for eggs I took them, but when I came to blow them I found them all rotten. I have oftentimes found nests with one or perhaps two rotten eggs in, but never before the whole lot. The old bird must have sit on them for some considerable time, for the eggs were extremely slick and polished.

T. G. PEARSON,
Archer, Fla.

Odd Eggs of the Cala. Towhee.

Thinking the subject of albinism in eggs might be of interest to some of the readers of THE OOLOGIST, I quote the following from my note-book.

"On June 8th, '89, while collecting in Eaton's Canon, Cala., I found a set of albino eggs of the California Brown Towhee. The eggs were three in number and of the usual size. The ground color was white, marked with a few spots of chocolate. When I discovered the nest the bird was sitting on it, but to make sure of the identity I shot her. She proved to be an adult female, perfectly marked.

W. R.
Pasadena, Cala.

Thousands of Blackbirds.

In this portion of the state of Kansas there are thousands of Blackbirds. They build in orchards, and are so numerous as to kill and break down trees, causing a horticulturalist so much trouble that he hires boys to tear down their nests. In one orchard a count was kept of the eggs. Some 1000 were gathered, the nests being built in the usual way, some five or six to a tree.

After the young can fly they congregate in flocks and fly from and to their roosting places and feeding grounds. They feed in the low lands bordering the river, and at night-fall fly to their roosting places on the higher ground.

When the time comes for going south, they mass in one immense flock. A flock went over this town recently, and as far as the eye could see there were Blackbirds, which continued for nearly two hours, their direction being south by south-west.

The Robins are beginning to fill up the woods. They stay in the woods here all winter, though you never see one in town till spring, making the people think that they just arrived from the south.

JOHN MYKRANTZ,
Paola, Kans.

The Yellow-headed Blackbird.

This is not a very common species in my locality, although I collected a number of sets during the season of 1889.

The only place in this locality where I found it breeding was a small grassy lake, called Lake Ningra or Dead Lake. On the eastern portion of this lake there is a great patch of cat-tails and rushes out quite a way from the shore. This is a great breeding place of the Yellow-headed Blackbird, also of the Least Bittern.

The nest of the Yellow-headed Blackbird is a light bulky affair made of flags and grasses woven together, and is often twice as deep outside as in, with a very wide margin. The number of eggs in a set of this species ranges from four to six, but four is the usual number, rarely five.

A set of four eggs of this species, which I collected at Dead Lake, May 31, 1889, shows the following measurements: 1.04x71, 1.01x71, 1.03x71, 1.04x71. The eggs in the above set are of a dull grayish white, thickly spotted with drab and umber.

I will close now hoping to hear more about this beautiful bird through the columns of THE OOLOGIST.

F. S. N.
Madison, Wis.

Northern Phalarope.

October 25th I had a Northern Phalarope brought to me alive and apparently in good health but for a gash on the left side of its head which had entirely deprived that orb of sight. I was informed that several more had been found dead at the foot of one of the electric light towers, where it had probably been attracted by the brilliant light and flown against the wooden railing that surrounds the lights. The towers are 110 feet high and consists of five electric lights erected on an iron frame.

No doubt throughout the country there are many birds killed by these electric lights.

The Phalarope is a very rare specimen around here.

C. C. T., Utica, N. Y.

The Oven Bird's Song.—A Corrected Statement.

I beg to differ with B. H. S., who in the October OOLOGIST said that the Golden Crowned Thrush had no song.

I have several times seen it singing and have shot it the act, that there might be no mistake about it. For better proof I can do no better than to copy from John Burrough's book, "Wake-Robin;" "Mounting by easy flights to the top of the tallest tree, he launches into the air with a sort of suspended, hovering flight, like certain of the finches, and bursts into a perfect ecstasy of song, clear, ringing and copious, rivaling the goldfinches in vivacity, and the linnets in melody. This refrain is one of the rarest bits of bird melody to be heard, and is oftenest indulged in late in the afternoon or after sundown."

C. A. S.
N. Y. City.

The Cedar Waxwing Eating Potato Bugs.

My father called me one day last summer out to his potato patch and showed me a bird that was busily catching and eating potato bugs. I learned shortly after that it was a Cedar Waxwing. It built its nest a block or two away and continued to come and catch bugs from our potato vines all summer. I never knew before that a bird would eat potato bugs.

GEO. W. VOSBURG,
Columbus, Wis.

Wood Pewee.

Probably one of the best known birds in eastern United States is the Wood Pewee. In this country it is known as the "Moss Pewee," which name I think is very appropriate, as its nest is built almost entirely of moss.

The description of one set will come very near answering for them all, so similar are they to each other.

The nest is situated on the horizontal fork of a limb, generally so far out that you cannot reach it except by means of a net on the end of a long pole. It is

constructed of moss, lined with fine roots and ornamented on the outside with lichens. There is only one nest that excels it in beauty, that is the Blue-gray Gnatcatcher.

The eggs are three or four in number, of a beautiful creamy white, spotted around the large end with obscure lilac and rich brown.

J. A. B., Morgantown, N. C.

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Sooty Tern.....	35	Chuck-wills-widow.....	1 50	Baird's Wren.....	25
Bridled Tern.....	2 00	Western Nighthawk.....	50	House Wren.....	06
Black Tern.....	12	Kingbird.....	03	Western House Wren.....	06
White-winged Black Tern.....	40	Arkansas Kingbird.....	08	Brown-headed Nuthatch.....	50
Noddy.....	75	Cassin's Kingbird.....	25	Tufted Titmouse.....	35
Fulmar.....	75	Crested Flycatcher.....	12	Blue-gray Gnatcatcher.....	20
Brandt's Cormorant.....	70	Prairie Horned Lark.....	20	Hermit Thrush.....	40
Baird's Cormorant.....	50	American Magpie.....	25	American Robin.....	02
Green Pelican.....	25	Blue Jay.....	05	Western Robin.....	15
Merganser.....	1 00	Florida Jay.....	1 50	Red-spotted Bluethroat.....	60
Merganser.....	2 00	Northern Raven.....	1 50	Bluebird.....	02
American Scaup Duck.....	60	American Crow.....	05	Western Bluebird.....	15
American Golden-eye.....	75	Florida Crow.....	50	English Sparrow.....	01
Barrow's Golden-eye.....	1 00	Fish Crow.....	25	European Tree Sparrow.....	15
American Eider.....	20	Bobolink.....	20	Guinea Fowl.....	05
Pacific Elder.....	1 00	Dwarf Cowbird.....	20	Dom. Pigeon.....	05
American Scoter.....	2 00	Red-winged Blackbird.....	02	Alligator.....	20
White-fronted Goose.....	1 50	Western Meadowlark.....	12	Skate.....	05
American Flamingo.....	1 00	Hooded Oriole.....	50	Shark.....	15
Great White Heron.....	1 25	Bullock's Oriole.....	15	Hammer-headed Shark.....	25
Yellow-crowned Night Heron.....	25	Great-tailed Grackle.....	20	Egg Case of Periwinkle.....	18
Trumpkin.....	1 25	Redpoll.....	50	FOREIGN EGGS.	
Clapper Rail.....	10	Arkansas Goldfinch.....	20	Lesser Grey Shrike.....	10
European Coot.....	15	Chestnut-collared Longspur.....	75	Red-backed Shrike.....	10
Red Phalarope.....	1 00	Savanna Sparrow.....	12	Mistletoe Thrush.....	10
Northern Phalarope.....	70	Yellow-winged Sparrow.....	20	Yellow Accentor.....	05
Long-billed Curlew.....	75	Lark Sparrow.....	05	Whinchat.....	08
Golden Plover.....	40	Chipping Sparrow.....	02	Sedge Warbler.....	08
Bob-white.....	10	Brewer's Sparrow.....	25	White-throat.....	10
Florida Bob-white.....	15	Black-throated Sparrow.....	50	Willow Warbler.....	10
Texas Bob-white.....	10	Heerman's Song Sparrow.....	12	Syrian Nuthatch.....	15
California Partridge.....	10	Swamp Sparrow.....	15	Great Titmouse.....	12
Ruffed Grouse.....	15	Towhee.....	10	Blue Tit.....	12
Oregon Ruffed Grouse.....	50	Californian Towhee.....	08	Great-crested Kinglet.....	25
Willow Ptarmigan.....	75	Cardinal.....	05	Tree Pipit.....	10
Rock Ptarmigan.....	1 00	Texas Cardinal.....	50	Corn Bunting.....	10
Wild Turkey.....	75	Rose-breasted Grosbeak.....	15	House Sparrow.....	03
Chachalaca.....	1 50	Indigo Bunting.....	08	Italian Sparrow.....	10
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Western Red-tail.....	75	Cliff Swallow.....	04	Red-legged Partridge.....	20
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